

ROSES
AND THEIR
CULTIVATION



T. W. SANDERS, F.L.S.



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ROSES AND THEIR
CULTIVATION.



HYBRID PERPETUAL ROSE, "HUGH DICKSON."

The best crimson rose for bedding, standards, pots, or town gardens. Colour, crimson-scarlet. Very fragrant.

ROSES

AND

THEIR CULTIVATION.

A Practical Guide to the Cultivation of the Rose, Out-doors and under Glass, including a Synopsis of the Different Types of Roses, and a Schedule of all the Varieties worthy of Culture in British Gardens; together with a Description of their chief Insect Pests and Fungoid Diseases.

ILLUSTRATED.

BY

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FOREWORDS.

THE rose seems to have been a cherished flower from time immemorial. In Holy Writ the prophet Isaiah says: "The wilderness and the solitary place shall be glad, and the desert shall rejoice and blossom as the rose," but it is doubtful if the rose he mentions is the true one. However, the rose has long flourished in the Holy Land and the East generally, and so it is more than probable that the rose of Holy Writ may be the true one. Anyway, the ancients were well acquainted with its beauties and subtle charms, since Herodotus, Aristotle, Theophrastus, Virgil, and Pliny of old refer to it. The latter, indeed, says that the warriors of his time crowned themselves with garlands of roses during their feasts, and also covered their food with the petals or sprinkled it with the fragrant oil thereof.

In more modern times the rose has also been held in high esteem as an emblem of joy and sadness. Thus young folks used to decorate themselves with garlands of roses, strew roses on the ground before the happy bridal pair; and, according to Camden, a writer in the fifteenth century, "there was in his day a classical custom observed, time out of mind, at Oakley, in Surrey, of planting a rose tree on the graves, especially of the young men and maidens who have just lost their lovers, so that this churchyard is full of them." Then, it has long been a custom in this country to use rose-water to wash the hands and refresh the face after a banquet.

In other ways, less romantic, the rose has come into prominence in this country. As everyone who has read English history knows, the red and the white rose were chosen as emblems by the opposing factions in the War of the Roses, made famous by the immortal bard, Shakespeare:

" This brawl to-day
Grown to this faction, in the Temple Garden,
Shall send, between the red rose and the white,
A thousand souls to death and deadly night."

Since that memorable affair the rose, however, has been regarded more as the emblem of peace. For the last three

FOREWORDS.

hundred years, at least, it has gradually become a favourite flower for decorating the garden, the greenhouse, and the home. Now the possessor of the humble cottage garden, the villa garden, and of the larger garden of the manor and palace, cultivates the rose by the dozens, hundreds, and thousands, and cherishes its brilliant and dainty colours and delicious fragrance more than that of any other flower. So popular, indeed, has it become that it has been crowned unanimously as the "Queen of Flowers."

As showing the remarkable increase of varieties cultivated during the last three hundred years, we may mention that in 1581 ten sorts were described, in 1620 nineteen varieties, in 1784 twenty-one, in 1797 forty-six. In 1829 a French grower published a catalogue of 2,562 varieties, and ten years later the number had advanced to thousands. The varieties named in the classified list at the end of this volume by no means represent the whole of those in cultivation on the Continent. Still, the list is a formidable one. What we have done is simply to include the names of reliable varieties to be found in the catalogues of English growers.

This, the eleventh edition, has been brought up to date as regards the addition of new varieties introduced up to the end of 1916. Something like sixty new varieties of Hybrid Teas have been placed in commerce since 1914, twelve of which have received the coveted hall-mark of excellence—the Gold Medal of the National Rose Society. No new Hybrid Perpetuals have been introduced, and only one Tea-scented variety, "Titania," which secured the N.R.S. Gold Medal. Several new varieties of the Wichuraiana and Rambler sections have appeared.

We have also revised the text where necessary and added illustrations of the latest novelties. Thus, the work has been brought up-to-date in every way, and the Author trusts that it will continue to merit the appreciation of the many thousands of Amateurs who are keenly interested in the cultivation of the rose.

1917.

T. W. S.

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THE Coloured Plates described below are included in this volume not only for their pictorial merits but also for their practical value in illustrating some of the more beautiful and popular varieties for the embellishment of the garden or greenhouse in the various ways recommended in the text. Thus we have given examples of eight of the most exquisite types of roses suitable for growing as climbers, as dwarfs or standards, also for pot-culture.

HYBRID PERPETUAL ROSE, "HUGH DICKSON" ...	<i>Frontispiece.</i>
The best crimson rose for bedding, standards, pots, or town gardens. Colour, crimson-scarlet. Very fragrant.	
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SINGLE-FLOWERED HYBRID TEA ROSE, "IRISH ELEGANCE."

An attractive variety for yielding cut flowers or growing in beds.
Of dwarf bushy habit. Colour, various shades of apricot; buds,
orange - scarlet.



DWARF ROSE, "CALLISTO."

Bearing soft yellow semi-double flowers in panicles of about a dozen or more blooms. Award of Merit, R.H.S., 1916.

TYPES OF ROSES.

Alba (*Rosa alba*).—The original type of this rose has been in cultivation since 1597. It bears small white fragrant blooms in June and July. The hybrids obtained from it are numerous, and all bear very beautiful blush or rosy-tinted blooms of exquisite fragrance. Essentially early summer blooming, and best grown as dwarfs, although some sorts do well as standards. They require to be pruned closely, *i.e.*, to two or three "eyes" or buds. Good ordinary soil and a well-drained bed or border will suit their growth well. Not suited for town gardens. The following are typical kinds: Maiden's Blush, blush; and Celestial, flesh.

Ayrshire (*Rosa arvensis*).—A native species from which several varieties, hardy in constitution rapid in growth, and prolific in flowering have been raised. They are all admirably adapted for quickly covering tree stumps, trellises, arbours, pergolas, pillars, walls, fences, etc., and grow with the greatest freedom in ordinary soils, in sun or in shade. Specially adapted for town gardens. Make excellent weeping roses budded on standard briars. Require no pruning beyond thinning out the shoots a little, and removing dead wood and



AUSTRIAN BRIAR ROSE.

cutting off the soft tips of remaining shoots. Dundee Rambler, white; Bennett's Seedling, White; Ruga, flesh; and Splendens, flesh, are excellent sorts. Ruga is perhaps the

best of all. This is said to be a hybrid between an Ayrshire and a tea-scented rose. The foregoing with the exception of Ruga and Splendens, are scentless roses.

Austrian Briar (*Rosa lutea*).—A European species, first introduced into this country in 1596, and bearing lovely yellow solitary flowers in June and July only. There are four varieties of it, namely, Austrian Copper, single, reddish copper; Austrian Yellow, single yellow; *Harrisonii*, golden



APPLE-BEARING ROSE. (See p. 3.)

yellow, double; and Persian Yellow, rich yellow, double. The Austrian Briar is one of the parents of a new race of roses called Austrian Hybrids or Pernetiana. See next page. They are easily distinguished from other roses by their prickly chocolate-coloured shoots, small leaves, and solitary flowers. Although hardy, they thrive best in a well-drained border at the foot of a south wall. A poor rather than a rich soil suits them best. They are essentially pure air roses, and hence not suited for town or suburban gardens. The flowers being borne near the extremities of the shoots of the previous year's growth, only the unripened tips of the strongest of the latter

TYPES OF ROSES.

should be removed, and the weakest thinned out slightly. May be grown as dwarfs or standards; the former is the best method of the two, however.

Austrian Hybrid Roses.—A new type of hybrid roses has been introduced within the last few years. It was obtained in the first instance by crossing *Rosa lutea* (Austrian Briar) with a hybrid perpetual named Antoine Ducher. The result of this cross was a variety named *Soleil d'Or*, which was introduced in 1900. This variety is noted for its reddish bark, vivid green foliage, and flowers of lovely combined tints of orange-yellow, ruddy gold, and nasturtium-red. It, moreover, possesses the excellent trait of fragrance. This was followed by the celebrated Lyons Rose, *Juliet*, *Beauté de Lyon*, and *Rayon d'Or*, all remarkable for their unique colouring. The new race has proved itself to be very popular for garden decoration, and has encouraged experts to try further experiments in obtaining crosses. The growth is fairly vigorous and the plants are noted for their freedom in flowering and fragrance. The first cross, alluded to above, was obtained by a distinguished French rosarian, M. Pernet-Ducher, who gave the name of *Pernetiana* as a distinguishing name for the new race. The numerous hybrids are given in the schedule at the end of this volume.

Apple-bearing (*Rosa pomifera*).—A near ally of the Scotch Rose (*R. pimpinellifolia*), a native of Europe (Britain), and long cultivated in old-fashioned gardens. It is very hardy, has glaucous foliage, and bears large single red flowers freely in June and July, which are succeeded by big brilliant scarlet apple or pear-shaped hips, that ripen in early autumn. A charming rose for the rough border, and succeeding under similar treatment to that accorded to *R. rugosa*. No pruning beyond thinning out the shoots, when crowded, required.

Banksian (*Rosa Banksia*).—Originally introduced from China in 1809. The typical species (*Alba*) bears small white, double, pleasantly-scented flowers in clusters in early summer. There is also a yellow variety (*Lutea*), which is equally pretty. These roses are not quite hardy, hence will only succeed against a south wall and in fairly good soil in a well-drained border. They will do well also against the back wall of a sunny, cold greenhouse. A warm greenhouse

is not suitable, as the heat would encourage a too free growth at the expense of flowering. Pruning should be done after flowering in June or July, cutting away gross shoots of the current year's growth that are not required to form future branches to fill up space, reserving the smaller twiggy shoots which alone will bear flowers next season.



BANKSIAN ROSE.

Barberry-leaved (*Rosa berberifolia*).—A native of Persia and Tartary, and introduced in 1790. An exquisite but unfortunately very tender rose. It bears solitary small yellow flowers, with a dark crimson spot at the base of each petal. There is one variety, *Hardii*, which bears single yellow blooms, having a chocolate blotch at the base of each petal. The flowers are very fragrant. Too tender to grow outdoors, except on a warm, well-drained bed or border against a south wall. Rarely grown in this country. Prune in April, thinning out weak shoots only.

Bourbon (*Rosa bourboniana*).—In the earlier editions of this work we divided the Bourbon roses into two sections, the



HYBRID TEA ROSE, "C. E. SHEA"

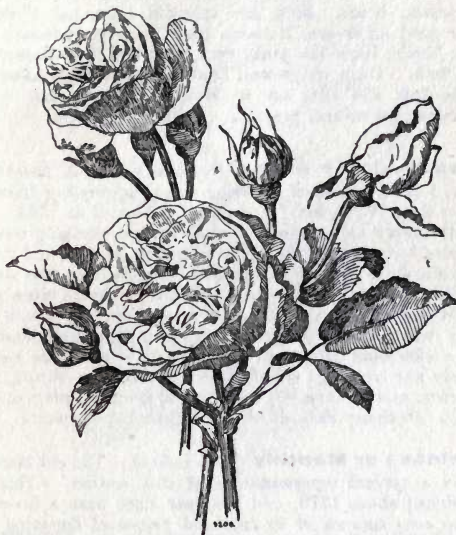
A beautiful silvery rose-pink variety, suitable for garden decoration or exhibition.
Awarded Gold Medal, N.R.S., 1916.



HYBRID TEA ROSE, "SUNBURST."

A beautiful buttonhole or pot rose. Colour, variable, ranging from orange or cadmiun yellow to creamy-white.

Bourbon proper and the Bourbon perpetual, but we have now decided to include both in one section, owing to the difficulty of striking a really well-defined line of demarcation between the two. The parentage of the Bourbon roses seems to be very much mixed, but the original type, from which the present



BOURBON ROSE.

race has sprung, was introduced from the Isle of Bourbon about 1825, and is said to be a hybrid between a China and a Damask rose. Whatever the origin of this beautiful race of roses, the sorts now in cultivation are remarkable for their free-flowering qualities, vigorous growth, and delicious fragrance. They are especially valuable for late flowering, blooms being forthcoming long after other roses have ceased to blossom. All the varieties do equally well as dwarfs, half-standards, standards, and climbers. They require a warm,

well-drained soil, and a position well sheltered from cold winds, to succeed satisfactorily. In the matter of pruning, do not cut the plants back too severely. Cut away the weak wood entirely, shorten the moderate sized shoots to four or six inches, and the strongest ones to a foot or so. Typical kinds are *Souvenir de la Malmaison*, and *Climbing Souvenir de la Malmaison*, blush. Both are splendid autumnal bloomers. Other good kinds are, *Madame Isaac Periere*, carmine; *Mrs. Paul*, blush; *Hermosa*, pink, very free; and *Mrs. Bosanquet*, pale flesh. On a warm wall *Souvenir de la Malmaison* will be the first and the last to bloom; anyhow such is our experience for several years in a suburban garden.

Boursault or Alpine (*Rosa alpina*).—A thoroughly hardy, vigorous class of climbing roses, originating from the Alpine Rose (*R. alpina*); a species introduced in 1683. The variety known as *Amadis* is one of the best climbing roses in existence for covering a north or east wall quickly, and flowering profusely in summer; also for arbours, trellises, tree stumps or pillars in town or suburban gardens. It bears large semi-double crimson flowers in immense clusters, which are very showy but not very fragrant. *Inermis Morlettii*, blush, is also a charming pillar or wall rose. These roses require scarcely any pruning; simply thin out the weak shoots, after flowering, and remove the soft tips of the remaining ones in March. Ordinary rich soil will suit their requirements.

Chinese or Monthly (*Rosa indica*).—The old Monthly rose is a typical representative of this section. This was introduced about 1770, and has ever since been a favourite garden rose because of its free and perpetual flowering properties. The other kinds classed in this section are varieties. They are all fairly hardy, and bloom very freely during summer and autumn when grown in beds or borders of rich, well-drained soil, and in a sunny position. They are not suitable for heavy cold soils, or sunless positions. The stronger varieties do well against south walls. China roses always produce the best effect when grown by themselves. With the exception of the common or monthly rose, these roses are not suitable for town, nor, indeed, for suburban gardens where there is much smoke. They require careful pruning. All the Chinas require to have their weak growths well thinned out, and the remaining shoots shortened very slightly indeed at the end of March

or early in April. Here is a good selection: Common Blush or Monthly Rose, pink; Cramoisie Supérieure, crimson; Little Pet, white; Sanguinea, crimson; Alba, white; Laurette Messimy, rose and yellow; Queen Mab, apricot and orange; and Ducher, white.



CHINESE ROSE.

Damask (*Rosa damascena*).—An old and favourite rose, supposed to be a native of Syria, and to have been introduced into this country in 1573. There are several varieties of it, all of which are vigorous growers, free-blooming, fragrant, and thoroughly hardy. The Damask rose is really one of the parents of the race of roses known as hybrid perpetuals. These roses are largely grown abroad for producing blooms for the distillation of rosewater. All summer-blooming. Most of them are good town roses, and one or two are good climbers for a south or south-west wall, also excellent for pillars. All do well as dwarfs, but do not make good standard kinds, on account of their growth being too straggly. Plant in October or November eighteen inches to two feet for dwarfs, and three

feet apart for standards. Prune in March, thinning out weak growth, and shortening the strong shoots about one-fourth, according to vigour and size. The vigorous growers, like Crimson Damask and Lady Sarah Wilson, only require weak wood to be thinned out, and unripened tips of strong shoots removed. Typical varieties are the York and Lancaster, pink and white, striped; Leda or Painted Rose, blush, edged with lake; Crimson Damask, single, crimson; Red Damask, red; Lady Sarah Wilson, semi-double, creamy blush.

Evergreen (*Rosa sempervirens*).—Although called evergreen, this rose is not really so. It retains some of its foliage, it is true, through the winter, but yet not to such an extent as to warrant the correct application of the name. Both the species—which, by the way, was introduced into this country from Central Europe in 1629—and its varieties are thoroughly hardy roses, and make excellent climbers for north, east, or west walls and fences, arbours, pillars, or weeping standards. They are very vigorous growers and profuse bloomers; chiefly summer-flowering roses. The blossoms are mostly semi-double, and borne in large bunches or corymbs of ten to fifty blooms each, which are white or pink in colour. They all require a rich soil. Plant between October and March, and prune in March. In pruning merely thin out the small shoots freely, and just remove the tips of the larger ones. First-rate town roses. For general culture Donna Maria, white; Félicité-et-Pérpetue, creamy-white; Flora, rosy-flesh; and Myrianthes Rénoncule, blush, edged rose, are excellent sorts. Félicité-et-Pérpetue is, perhaps, the best of them all.

Fairy or Lawrenciana Rose (*Rosa polyantha nana*).—The roses belonging to this section are dwarf forms of the China rose, and do not grow more than a foot high. They are specially adapted for pot culture in windows or greenhouses, and for edgings to rose beds, on well-drained soils and in mild districts. Easily raised from seed sown in a warm greenhouse in early spring. Plants so raised will begin to flower when two months old. Thousands of such plants, bearing double pink flowers, are sold by florists in spring and summer. If grown outdoors, a dry soil and sunny position are necessary. Scarcely any pruning is required, merely cutting out weak and removing tips from strong shoots. Do this in April. See chapter on "Roses as Annuals."

French or Gallica (*R. gallica*).—The race of roses grouped under this head is descended from *Rosa gallica*, a native of France and the south of Europe. Prior to the advent of the hybrid perpetuals they were the favourite class of roses, and grown to the same extent as the H.P.'s are to-day. No roses are easier to grow, are more hardy, more beautiful when in bloom, or more delicious in their fragrance. They will grow in any fairly good soil, but require full exposure to the sun. Not good town roses, however. They are compact growers, and do well grown as dwarfs or standards. Plant from October to March, eighteen inches apart if dwarfs, and three feet if standards. Prune in March, thinning out the centres of the plants, and otherwise treating as advised for the Damask Rose. The following are charming varieties: *Rosa Mundi* or Village Maid, white, striped rose, and purple; *Blanchfleur*, white, tinted flesh; and *Éillet Parfait*, white, striped rosy crimson.

Hybrid Bourbon (*Rosa bourboniana hybrida*).—The roses classed under this head are mostly hybrids between the Bourbon and the French or Provence roses. They are a very fine type of garden roses, thoroughly hardy, robust growers, and free bloomers. The flowers, individually, are large, brilliant in colour, very fragrant, and borne in summer only. Ordinary rich soil and a sunny position. They are well adapted for town or suburban gardens, even in cold localities, and are good pot roses also. Plant October to March, two feet apart. Prune as advised for the Bourbon section. Strong growers do well for pillars or trellises; moderate growers for dwarfs or standards. Typical varieties: *Charles Lawson*, rose; *Coupe d'Hébé*, deep pink; *Paul Ricault*, crimson.

Hybrid Chinese (*Rosa indica hybrida*).—Hybrids between the French, Provence, and Chinese sections, but possessing the characteristic features of the two former, *i.e.*, hardiness, robustness, and flowering in summer. Like the preceding type, they are excellent garden roses, and do well in town or suburban gardens. A rich soil and a sunny position will grow them well. Some of the sorts, like *Blairii* No. 2, *Chênédolé*, *Vivid*, and *Fulgens*, are excellent climbing, weeping, or pillar roses, growing from four to ten feet in one season. *Madame Plantier*, white, also makes a splendid standard or pillar rose, flowering profusely in summer. Plant in March or April,

not in autumn. If grown against walls or fences a south aspect is best. Thin out weak shoots, and shorten remainder about one-half or one-third, according to size and maturity. Lateral shoots shorten to three or four eyes.

Hybrid Tea-scented (*Rosa indica odorata hybrida*).
—The race known as Hybrid Teas differ very little in their general characteristics from the Hybrid Perpetuals, and



HYBRID TEA ROSE.

hence are often classed with the latter in catalogues. The present varieties originated from crosses and intercrosses with the Teas and the Hybrid Perpetuals, and have the vigour of the latter with the fragrance of the former. La France is a good example of this class of rose. The first Hybrid Tea raised was Cheshunt Hybrid, which was introduced in 1873. It was not, however, until 1890 that the race was recognised as a distinct type. All the sorts are adapted for pot culture, for growing in beds, and for

cultivation as standards, half-standards, and dwarfs; also as climbers for walls, arches, etc. Most of them are very hardy and well suited for culture in suburban gardens. They are first-rate autumnal bloomers. Hybrid Teas require to be pruned in the manner advised in the chapter on pruning further on. That is to say fairly close for exhibition purposes and in a medium way for ordinary purposes.



HYBRID PERPETUAL ROSE.

Hybrid Perpetual (*Rosa damascena hybrida*).—Here we have a class of roses of mixed parentage. Some are derived from the Hybrid Chinese, some the Damask Perpetual, others the Bourbon and Noisette Perpetual. But the majority bear a strong resemblance to the Damask type, hence the specific name *damascena*. They are practically the earliest efforts of the hybridists, and were cultivated as early as 1837. Until 1890 they were really the most popular class of roses, but since have been superseded by the Hybrid Teas. They are all autumnal roses; that is to say, they commence

to flower in May or June, and continue in flower until November. This, indeed, is the reason why they are termed Perpetuals. No class or type of rose is, with the exception of the tea-scented and hybrid tea, so popular or so widely grown as the hybrid perpetual. The numerous varieties are not only very hardy, free-growing, and capable of succeeding well in town and suburban gardens, but are for the most part deliciously fragrant and wonderfully varied in colour. All are admirably adapted for pot culture or for growing as dwarfs or standards, budded or grafted on the manetti, seedling or cutting briar, or grown on their own roots. They require a rich soil, a sunny position, and generous treatment. Given this and judicious pruning annually, no class of rose will flower more profusely, or give greater satisfaction. Pruning should be done partly in autumn and partly in March. In October, thin out the weak and cut away old and worn out shoots, leaving strong young ones of the current year only. In March complete the pruning as advised in the Chapter on "How to Prune."

Hybrid Sweet Briar (*Rosa rubiginosa hybrida*).—A new race of roses, obtained by Lord Penzance by crossing varieties of the Hybrid Perpetuals and Fortune's Yellow with the Sweet Briar. The varieties thus obtained possess fragrant flowers and foliage, bear large and beautifully-coloured blossoms, and are in every way a decided acquisition. They are admirably adapted for growing in masses in beds or for forming hedges. Grow in ordinary good soil. No pruning needed beyond cutting out a few of the older shoots that have flowered, to make room for the young ones. Do this in July. Amy Robsart, rose; Anne of Gierstein, crimson; and Lady Penzance, copper, are typical varieties.

Lucida or Clynophylla (*Rosa lucida*).—A North American rose, first introduced into England in 1724. The variety Duplex has bright, shiny foliage, and bears double blush-coloured flowers during summer and autumn. May be grown as a dwarf in ordinary rich soil in a sunny position. Not suited for town gardens. Plant October to March, and prune moderately in March.

Macartney (*Rosa bracteata*).—Beautiful evergreen and somewhat tender roses, hailing from China, from whence they were introduced in 1795 by Lord Macartney. Only two



AUSTRIAN HYBRID ROSE, "JULIET."

**A charming rose for growing as a bush or standard.
Colour, vermillion-rose and old gold, Very fragrant.**

varieties are grown, viz., *Alba simplex*, white and single; and *Marie Leonida*, white and creamy, blush, double. These lovely roses require to be grown against a south or south-west wall, in rich soil. They should be planted in March or April, and pruned in April, thinning out weak shoots and removing the soft tips of the larger ones.

Microphylla (*Rosa microphylla*).—A dwarf rose, and a native of the Himalayas and China. Introduced in 1828. It



HYBRID SWEET BRIAR ROSE. (See p. 12.)

is evergreen, and furnished with very small leaves. The plants require to be grown in sandy soil at the base of a south wall. The flowers are single, white, and borne in summer. There is a hybrid variety, a cross between the species and *rugosa*. It has large, single flowers, white, edged pink.

Moss (*Rosa centifolia muscosa*).—Originally a sport from the old Provence or Cabbage rose, and said to have been introduced into this country from Italy in 1735. At one time moss

roses were not particularly showy, but since the florists have taken them in hand and crossed them with the Hybrid Chinese, some really pretty varieties have been obtained. The type we are dealing with here are summer-blooming kinds only. There are some that flower in autumn, but these will be dealt with under the head of Perpetual Moss roses further on. All the present varieties are hardy, but with the exception of the Common Moss, Lanei, and Baron de Wassenaër,



Moss. ROSE.

they are not good town roses; they really prefer the purer air of the distant suburbs and the country. Very few kinds do well on standards: they thrive best as a matter of fact on their own roots, or budded on the briar. A rich soil and an open position is indispensable; indeed they cannot be treated too liberally in the former respect. Plant from October to March, in borders or in beds. Pruning should be done in March, thinning out the weak growth and shortening the young growths and the laterals on older wood to four or six "eyes." The following are typical varieties: Céline, crimson and purple; Common, pale rose; Crested, rose; Crimson or

Damask, deep rose; Lanei, rosy crimson; Reine Blanche, pure white; White Bath, white; Comtesse Murinais, white; Baron de Wassenaër, crimson.

Miniature Provence or Moss (*Rosa centifolia* var.).—A dwarf type of the cabbage rose, not exceeding a foot in height. They are admirably adapted for edgings to beds or for massing, but unfortunately do not last in flower



MULTIFLORA ROSE (CRIMSON RAMBLER).

very long. Grown in pots, however, in a cold greenhouse they make charming plants during the short time they remain in bloom. They require similar treatment to the Provence or Cabbage rose. Not good town roses. De Meaux, rosy lilac, is the kind generally known.

Multiflora (*Rosa multiflora*).—In former editions of this work we separated the roses belonging to this section into three classes, namely, the Multiflora scandens, Polyantha, and the Polyantha Perpetual. All three, however, belong to the same species. There are two distinct types, the climbing and

the dwarf. The former are the well-known Rambler roses, and the latter the dwarf or miniature roses, known as Pompons or Polyanthas. To the former section belong such sorts as Turner's Crimson Rambler, crimson; Aglaia, yellow; American Pillar, pink and white, single, etc.; and Claire Jacquier, nankeen yellow. In addition, there are also two single-flowered climbers known as Multiflora and Multiflora grandiflora. To the dwarf section belong the following charming varieties: Cecile Brunner, blush and pink; Georges Pernet, peach and yellow; Madame Anna Marie de Montravel, white; and Paquerette, white. The original species came from Japan. The climbing varieties are charming, free-flowered, and hardy roses, especially adapted for covering arches, pergolas, arbours, tree trunks, and trellises. Turner's Crimson Rambler has been tried against walls, but it fails to succeed satisfactorily grown thus. The dwarf sorts are specially suitable for edgings to rose beds, also for pot culture in cool greenhouses. Those who want some charming miniature rose buds or blossoms for table or indoor decoration, should grow plenty of Cecile Brunner. The climbers require careful pruning. The best plan is to make a point of cutting out in July, or rather directly after flowering, all the shoots that have borne flowers, leaving the young growth only to bear flowers next year. No pruning will be required in spring, except to remove the dead wood and the soft tips of the shoots. The dwarfs merely need to have the weakest shoots thinned out in April, and the remainder shortened half or one-third.

Musk (*Rosa moschata*).—The varieties of this section are somewhat tender, and hence only adapted for warm situations, such as a south or south-west wall. They are climbing roses. The original type was introduced from Persia in 1596. They are all more or less fragrant, possessing a musk-like odour. All bloom in September and October. Plant in March or April, and prune in April. Thin out the weak shoots freely, and shorten the stronger ones about one-fourth, not more. Following are typical varieties of the Musk Rose: Eliza Werry, nankeen yellow and white; Princesse de Nassau, straw yellow; Rivers, pink and buff; and Flore pleno, double flowered. Not suited for greenhouse culture.

Noisette (*Rosa moschata noisettiana*).—This type of rose originated in America, and is supposed to be the result

of a cross between the Chinese and the Musk roses. The original hybrids, like *Aimée Vibert* (introduced in 1828), are very hardy, and will thrive and flower well in town gardens. The modern hybrids, however, are rather tender, and require to be treated similarly to the tea-scented kinds. As a matter of fact, some of the modern noisettes have a certain amount of the tea blood in them, so to speak. But they are beautiful, nevertheless, the



MUSK ROSE. (See p. 16.)

colours being so charming and the perfume so sweet. The noisettes are distinguished from the teas by bearing their flowers in large clusters. They are mostly of vigorous habit, and make charming pillar or climbing roses outdoors or under glass. Those best suited for south or south-west walls in town gardens are: *Aimée Vibert*, white; and *Reve d'Or*, a pretty yellow-flowered kind. Those, again, that will thrive in the suburbs and country, and against east and west walls are: *L'Idéal*, coppery-rose; *W. A. Richardson*, orange-yellow; and *Reve d'Or*, yellow; whilst for standards

W. A. Richardson, Aimée Vibert, Caroline Kuster, and Celine Forestier are good sorts. The popular Maréchal Niel belongs to this class, but is too tender to grow outdoors, except in the south and west. It thrives best under glass. Plant in April or May. Ordinary rich soil will suffice. Those to be



NOISETTE ROSE.

grown as standards must be planted in a sunny position. The strong-growing kinds should have a few of the old flowering shoots thinned out in July, to make room for the young ones to develop and ripen. In April cut away all weak and sickly shoots, and shorten the remainder very slightly, according to their vigour and maturity.

Provence or Cabbage (*Rosa centifolia*).—One of the grandest types of garden roses, and one which has not had the attention it deserves of late years. Thoroughly hardy, free-flowering, fragrant, and handsome in foliage and flower, there is nothing to beat it as a garden rose. The old-fashioned Cabbage is the familiar type of the Provence rose, and has been grown in English gardens ever since 1596. In old-



CABBAGE ROSE.

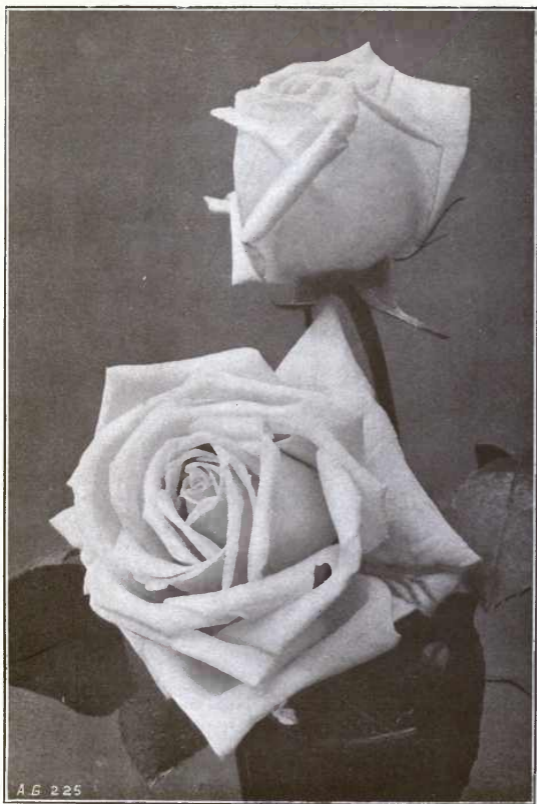
fashioned gardens one may frequently come across large bushes laden with rosy-tinted blooms, filling the air around with their delicious fragrance. There are two other forms, a white, known as the White Provence, and a rose-tinted one, called the Crested Moss (*cristata*), so named because its buds are surrounded by a beautifully-crested calyx. The common Cabbage rose is the most vigorous of the three. This may be grown as a dwarf bush or as a standard. The Crested Moss also does well as a standard or dwarf, and the White Provence as a dwarf only. They all like a good rich soil, and a sunny

position. Prune in March, then shortening the laterals on the old growths, also the young shoots to four or six "eyes." All summer-blooming only.

Perpetual Scotch (*Rosa spinosissima*).—There is only one variety worth growing, and that is Stanwell Perpetual. The typical species is a native rose with spiny stems, and flowering in summer. The above variety bears double rosy flowers freely from May to November, and will succeed on any sunny bank or wild part of the garden. Ordinary rich soil suits its requirements, and no pruning beyond thinning out the crowded shoots in March is needed. Plant October to March. Not suited for town gardens.

Perpetual Moss (*Rosa centifolia muscosa*).—Closely allied to the common Moss rose, but flowering in autumn as well as summer. All free-flowering, exceedingly fragrant, and requiring to be grown in rich soil as standards or dwarfs. They are not to be commended for culture in town gardens. No collection of roses in the suburbs, where the air is fairly pure, or in the country, should fail to include this type of rose. Require the same treatment and pruning as the Moss type. The best varieties are Blanche Moreau, white; Madame W. Paul, rose; White Perpetual, and Madame Edouard Ory, rosy carmine.

Rugosa (*Rosa rugosa*).—A Japanese species, introduced in 1845, and now largely cultivated for the sake of its showy crimson and white flowers, its brilliant scarlet haws in autumn, and its handsome evergreen foliage. The typical species bears single crimson flowers, but there is also a single white variety named *R. rugosa alba*, a double crimson form known as *R. rugosa flore-pleno*, and a double white named Blanc Double de Coubert. Other beautiful and newer forms are: Conrad F. Meyer, silvery-pink, and very fragrant; Rose à Parfum de l'Hay, cherry-carmine red, also very fragrant; and Madame Georges Bruant, white. The latter are thoroughly hardy, and may be grown in company with the older sorts in rich soil in an open sunny border, as isolated specimens on a lawn, or as hedges or masses in the wild garden. All the roses belonging to this type do well in town gardens. No pruning beyond shortening a straggling shoot now and then is needed; allow the plants to grow freely, and then abundance



HYBRID TEA ROSE, "PAUL'S LEMON PILLAR."

A vigorous growing rose suitable for pillars. Colour, lemon-white. Fragrant.
Awarded the Gold Medal of the National Rose Society in 1915.



HYBRID TEA ROSE, "BRITISH QUEEN."

A vigorous growing exhibition, garden, standard, or pot rose.
Colour, creamy-white. Fragrant. Gold Medal Rose.

of blossom and plenty of haws will be obtained, and the garden made lively from June to December. This section is often called the Ramanas Rose.

Scotch (*Rosa spinosissima*).—The typical species is a native rose, growing freely in a wild state in many parts of this country, but more particularly in Scotland. There are a large number of varieties which bear deliciously scented double flowers of various shades of yellow, pink, white, purple, and



SCOTCH ROSE.

red throughout the summer. They are thoroughly hardy, and will grow in ordinary soil on banks, or as bushes in borders where it is not possible to grow other types of roses. As a rule they grow from 1 to 4ft. in height, and form compact little bushes. No pruning is required; indeed, it would not be an easy task to do it, as the shoots are furnished with fearfully long and sharp spines which tear the flesh terribly unless the hands are well protected by exceptionally thick gloves. The Scotch rose has a habit of pushing up underground

stems for some distance from the parent plant, and hence in a few years one or two plants will form an impenetrable mass of growth which will flower freely throughout the summer. We advise those who purpose starting to grow Scotch roses to purchase mixed seedlings. These will provide a great variety of colour and answer as well as named sorts.

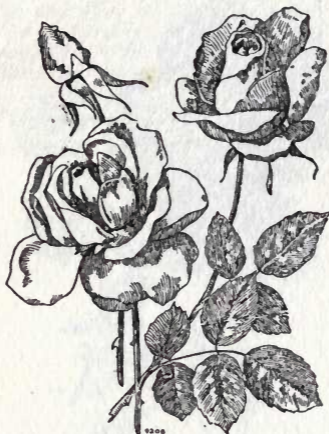
Sweet Briar (*Rosa rubiginosa*).—This is also a native species found growing wild in almost all parts of the kingdom, as well as in other parts of Europe. The typical species is interesting only for the fragrance of its leaves and for its scarlet haws in autumn. It is sometimes grown to form a low boundary hedge, and it answers this purpose well. Plant the briars a foot apart for this purpose. If not grown as a hedge rose, a plant or so in a sunny border (ordinary soil) will be sufficient. No pruning beyond thinning out the shoots and shortening straggling ones occasionally is required.

Tea-scented (*Rosa indica odorata*).—The roses grouped under this heading represent the *crème de la crème* of the rose family. Exquisite in the delicacy, variety, and superb loveliness of the tints of their beautiful blooms; unspeakably delicious in their fragrance; invaluable for the freedom with which they flower, and for the long duration of their flowering period, they are unquestionably the finest class of roses we have in cultivation at the present day. What finer type of rose could we wish for than we have in *Niphetos*, the prince of tea roses? And there are numbers of others that are equally worthy of praise in this section. But they speak for themselves. The old proverb, "Good wine needs no bush," may indeed be fitly and aptly applied to the tea-scented roses. All the varieties, and they may be counted by hundreds, have descended from the Old Blush Tea-scented rose, introduced in 1810, and a yellow variety, which made its appearance here in 1824, by a system of crossing and inter-crossing adopted by English and French rosarians. Coming originally from so warm a climate, the varieties are naturally somewhat tender in constitution, and hence require to have greater care bestowed on them than on other types.

To grow tea roses successfully out-of-doors a well-drained bed and a sunny sheltered position is necessary for the dwarf sorts, whilst for the tall ones a south or south-west wall is desirable. Tea roses like a pure air, too, and therefore do not prove good town plants, so that we advise those of our readers who do not live in a salubrious district not to waste time, money, and

space in attempting to grow tea roses. Wherever grown the plants need a certain amount of protection from frost. This is generally given in two ways, by drawing the soil up so as to bury the base of the shoots, or covering the shoots with litter or bracken. The soil should be light and rich. Heavy, clayey, and wet soils are quite unsuitable.

Hints as to preparing the soil, planting, and pruning, will be found elsewhere.



TEA-SCENTED ROSE.

Wichuriana Roses (*Rosa Luciae*).—A comparatively new race of roses, the original of which came from Japan, and first flowered in this country in 1893. The species bears single white flowers, and is a vigorous grower, making shoots from ten to fifteen feet long in one season. It is a splendid plant for trailing over a sunny bank, rockery, or low tree stump. The flowers are freely produced, and deliciously fragrant. A host of charming hybrids have been raised which surpass the species in beauty, and these are: Alberic Barber, creamy white; Dorothy Perkins, double, pink; Jersey Beauty, single yellow; Hiawatha, scarlet, single; Debutante, pink, double, etc. These require no pruning beyond removing

dead wood and thinning out the older shoots where much crowded.

Species.—There are various single and double-flowered species of roses which are worthy of a place in large gardens where a more or less complete collection of roses is desired. Most of them are perhaps more curious than beautiful, and we shall, therefore, only mention those that possess any real attraction. These are: Brunonis (Himalayan Briar),



WICHURAIANA ROSE (DOROTHY PERKINS).

pure white, single, yellow stamens, climber; Brunonis fl. pl., double; Gigantea, large, single, white flowers, very vigorous, climber; lucida, rose-pink, single; lucida fl. pl., double, suitable for growing as a bush; Macartney Rose, large white flower, yellow stamens, glossy evergreen foliage, requires a south wall; Macrantha, flesh, single, bush or pillar variety; Moschata alba (White Musk Rose), white, single, borne in clusters, climber; Sericea pteracantha, large bright red winged thorns on young wood, single, bush; Setigera (Prairie or Bramble-leaved Rose), pink, bramble-like foliage, climber; and Sinica Anemone, silvery-pink and rose, single, a climber, which requires a south wall.

WAYS TO GROW ROSES.

THE sweetest and fairest flower of the garden lends itself charmingly and agreeably to many ways of culture. You may grow it as a simple bush or tree in the border; as a climber for beautifying an ugly or bare wall, fence, trellis, post, or building; for decorating an arbour or pergola; clothing a bare bank; or for forming a delightfully fragrant hedge. In fact, so cosmopolitan is the "Queen of Flowers," you may do almost anything you like with it.

On Arches.—A pleasing way of growing the many beauti-

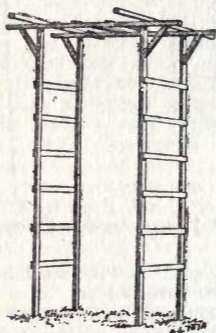


FIG. 1. A SIMPLE WOODEN ARCH.

ful forms of climbing or rambling roses in large or small gardens is on arches of wire, iron, or rustic wood. Wire arches are popular in small gardens, mainly because they are less costly than wood and less difficult to procure. We, however, cannot so strongly recommend them for general use, because of the fact that they become very hot in summer and excessively cold in winter, these variations of temperature not

suiting the growth of roses so well as in the case of wooden ones, which are unaffected by changes of heat and cold. There is no doubt that the ideal arch for growing roses, as well as for its artistic and picturesque appearance in the garden, is that constructed of bamboo, or of peeled oak, larch, or chestnut wood. The growth of the plants takes kindly to them, and they are certainly more in harmony with the surroundings of the garden than are the formal, rigid arches of wire or iron. Arches of wood and bamboo are sold by all rustic furniture makers; but anyone having

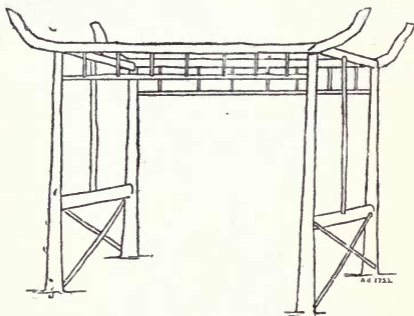


FIG. 2. A BAMBOO ARCH OF CHINESE PATTERN.

access to suitable wood, and the needful leisure, may easily construct one for themselves. Arches are appropriate features in the garden when fixed at the junction of paths, or at points leading from one portion of a garden to another. The portions that are to be fixed in the soil should be first treated with a preservative, such as carbolineum, to a distance of quite a foot above the ground level. It is just at the ground level, in fact, that decay sets in, the point where the air and moisture alternately acts upon the wood. As a rule, one rose is sufficient on each side of the arch. Where arches are 2ft. or more in width then plant two roses on each side. Sometimes it may happen that one side of an arch may get more sun than another. In that case plant sorts that will do with less sun, such as Bennett's Seedling,

Félicité et Perpetue, Ards Rover, Bouquet d'Or, Zephirin Drouhin, or W. A. Richardson, and place on the sunny side varieties like Dorothy Perkins, American Pillar, Crimson Rambler, Blush Rambler, Climbing Aimée Vibert, Paul's Carmine Pillar, and Conrad F. Meyer. In this way a successful growth and a brilliant display of flowers may be more readily assured, thus adding materially to the general attractiveness of the garden. In the event of wire or iron arches being used, give them one or two coats of green paint, to act as a preservative and render them less unsightly to the eye. This will also prevent the free acid in the galvanized covering injuring growth. (Figs. 1 and 2.)

On Pillars.—The cultivation of roses on pillars or poles in the garden has become a very popular feature of late years. Since the introduction of the rambler and free-growing types, rosarians have discovered that these grown and trained to a wooden or iron pole here and there about the borders and lawn make a distinctly pleasing effect in the garden. The culture of roses in this fashion is an extremely simple business. You have only to fix a stout larch or oak pole 8ft. to 10ft. high where you propose to grow the rose, and then train the shoots as they grow to it; or the trunk of a medium-sized conifer, divested of its side branches to within a foot or so of the stem and fixed in the ground, will do just as well. There are special iron pillars, made with a flanged base to keep the pole firm in the soil, and with adjustable additional lengths to be obtained, which will prove more durable than wood; but whether they will prove as agreeable to the growth of the rose as those of wood remains to be seen. We know of no more delightful feature in the garden than a well-grown pillar rose, such as Dorothy Perkins, for example, when in full bloom. Then the pillars or supports of verandahs, summer-houses, and porches afford an equal opportunity of growing the free-growing types of roses. Besides Dorothy Perkins, the following sorts may be grown thus: American Pillar, Blush Rambler, Paul's Carmine Pillar, Hiawatha, Reine Olga de Wurtemberg, Ards Rover, Climbing Mrs. W. J. Grant, Billiard et Barré, Paul's Scarlet Climber, and Alister Stella Gray. At the same time, we may just briefly make a reference to the pruning of pillar roses, since upon the correct way of doing this depends their successful growth and flowering. Each summer,

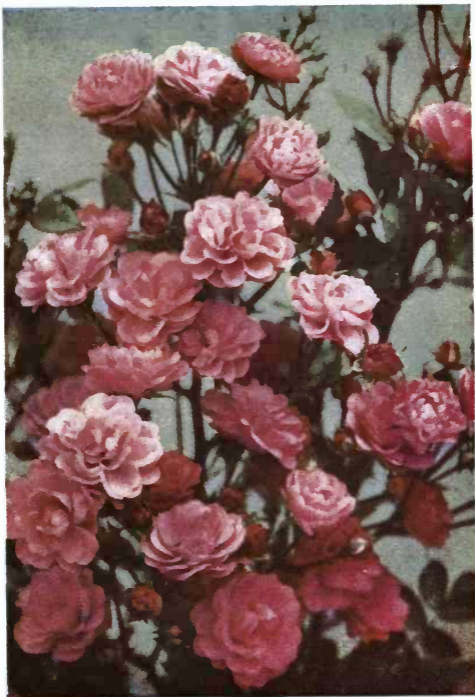
directly after flowering, make a practice of cutting out the shoots that have flowered, and retaining all the strong young growths. In March it then only remains to thin out weak growths and to cut off the unripened tips of the others.

On Pergolas.—The pergola is a garden structure of Italian origin. In that land of brilliant sunshine shade is a matter of very great importance, and hence the Italians conceived the very pretty idea of erecting a framework of wood and masonry over garden paths, whereon to grow the lusty vine and other creepers, to afford a shady retreat on summer days. The idea found its way to this country, and to-day there is hardly a large garden of importance that does not contain a costly and elaborately constructed pergola, with brick or stone pillars supporting a massive framework, as in his Majesty's garden at Sandringham, for instance, down to the villa garden with its substantial framework of larch or oak, and the small garden with its slender framework of poles or of bamboo.

A pergola, indeed, is a delightful feature in any garden, especially when covered with a choice assortment of creepers and roses. It is not necessary that it should be elaborately constructed. Of course, those who have the means and the inclination to erect an elaborate pergola may do so if they wish. In this case, the skill of the architect must be called into requisition to furnish a design in stone or brick and wood conformable to the architecture of the place. But for ordinary purposes there is no need to consult an architect. Any intelligent carpenter would construct a substantial one of squared pitch pine or oak.

A good type of pergola, however, and one easily constructed, is shown in the accompanying diagram (Fig. 3). This was constructed by a reader of "Amateur Gardening," and we cannot do better than reproduce his remarks describing how he erected it. He says:

"When I entered into possession of my garden I had to deal with a rectangular piece of vacant ground about 30 yards in length by 20 yards in width. A good hedge of Myrobellan plum bounds it on the north side, and grass paths form the other boundaries. The grass walks, although in bad condition, were too valuable to be disturbed, and I divided the ground into four equal parts by gravel paths. At the junction of the paths, as shown in the sketch on p. 29,



DWARF POLYANTHA ROSE. "MRS. W. H. CUTBUSH."

**A good bedding or pot rose. Colour, bright pink,
Flowers very freely in autumn.**

eight substantial larch poles were placed, one at each of the corners of the intersecting paths, and a light openwork roof of smaller poles erected, capped by a simple finial.

"The pergola poles are of oak and birch, but I would recommend the former if easily procured. Stripped of their bark and dressed with carbolineum, oak posts are long lasting. Smaller rods form the interlacing roof of the pergola and the sides. My gardener placed the uprights in position, and a rough sketch and a little personal supervision sufficed to direct a very capable handy-man who undertook the erection of the superstructure.

"The height of the poles in the pergola is 7ft. 6in., and they are set 6ft. 6in. apart; the poles of the bower are about

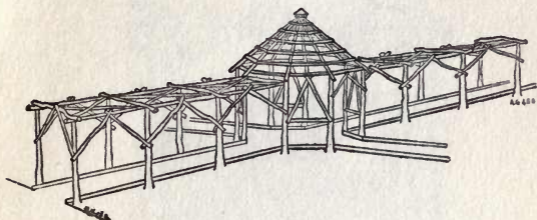


FIG. 3. A PRETTY DESIGN FOR A ROSE PERGOLA.

a foot higher, and the cap of the openwork roof is 12ft. 6in. from the ground. The upright poles in the bower are about 3in., the pergola poles rather less than 3in., and the cross rods from 1½in. to 2in. in diameter.

"The bower is now well covered with roses, Carmine Pillar, Trier, Bennett's Seedling, Leuchstern, Dorothy Perkins, Madame Berard, Aglaia, and Philadelphia Rambler. Aglaia this year has made too much wood and not enough blossom to be satisfactory. Hiawatha, Blush Rambler, Queen Alexandra, Lady Gay, Mrs. F. W. Flight, Clematis montana, Dutch honeysuckle, wistaria—these are in every way pleasing, but I have substituted rambling roses for clematis, vines, and blackberries.

"And now, as to the cost of this pergola and rose bower: The wood cost me about £6, and to my friend the handy man I paid £4 7s. 6d. To this must be added the value of my

gardener's work, which may be fairly stated at £2. Thus the total is less than £13."

A pergola such as just described is good enough to satisfy all ordinary requirements, and will last for very many years. After all, it is not so much the design of a pergola that is to form the chief feature in the garden beautiful as the creepers and roses that are to be grown upon it; and, so long as it looks fairly artistic, and is strong and durable, these are the only points that have to be considered.

Undoubtedly oak, with its bark removed and dressed with

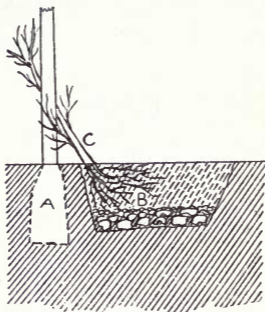


FIG. 4. MODE OF PLANTING.

A, Pergola post; B, bed of soil; C, stem of Rose.

carbolineum, is the best material wherewith to construct a pergola. Sweet chestnut comes next in order of durability. Larch lasts fairly well, but does not equal the two woods just named.

The question next arises as to a suitable position for a pergola. Undoubtedly the best site is that leading from one part of a garden to another, or over a straight path leading down the centre of a lawn. It should, of course, never be placed where it spoils the general view of the garden, nor over a curved path. A pergola must be straight, not winding about, and its outlet should lead to some pretty feature in the garden.

The next point is covering the structure with creepers. These may consist of a mixture of climbers and roses alone. Personally, we prefer to see roses grown by themselves; there

is then no risk of their being outgrown or smothered by other more luxuriant climbers. A pergola of roses alone is "a thing of beauty and a joy for ever." If you intermix the summer bloomers, such as Bennett's Seedling, Crimson, Tea, and Blush Ramblers, Dorothy Perkins, Paul's Carmine Pillar, and American Pillar, with the autumn or perpetual bloomers like Bouquet and Rêve d'Or, Climbing Aimée Vibert, Longworth Rambler, Conrad F. Meyer, Reine Olga de Wurtemberg, Trier, and Madame Alfred Carrière, there will be a continuous display of blossom from June to October. See also Selections.

And next to selecting the right sorts there is also the importance of preparing good beds for the plants. Thus a

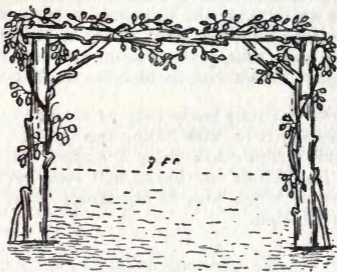


FIG. 5. TRAINING ROSE ON A PERGOLA.

Showing how to train the stems round the post until they reach the summit of the Pergola.

good bed, at least 3ft. to 4ft. square, should be provided at the base of each support. Dig the soil out 3ft. deep. If the natural soil be of clay, mix one part of this with two parts of good loam, and add one part of equal proportions of rotten manure, burnt refuse, and decayed leaves. To the heap of soil for each hole add 7lb. of half-inch bones. In the bottom of each hole place six inches of brickbats to serve as drainage. If the natural soil be light add two parts of heavy loam or clay to the former, with the addition of the other materials previously described. Fill the holes to within six inches of the surface, and tread the soil fairly firm. On this spread the roots of the roses, then cover with soil, and finish off with a mulch of decayed manure. (See Fig. 4.)

When first planted prune all weak shoots the following spring to 6in. or 1ft., and the stronger ones to the first plump dormant bud. Thereafter the only pruning required will be precisely as advised for pillar roses. (See Fig. 5.)

Hedges.—A charming effect may be obtained by growing the Hybrid Sweet Briars and Japanese Roses (*Rosa rugosa*) as divisional hedges in the garden. The latter will make a nice compact hedge, look very pretty when in blossom, and especially effective in autumn when the bushes are laden with bright red fruits. Plant the bushes about three feet apart, and do not prune except to cut away dead wood or to shorten any straggling shoot. The Hybrid Sweet Briars will require a rough kind of fence to train the main shoots to for a few years, after which they will take care of themselves. Plant them three feet apart. A plant of the Hybrid Sweet Briar, or of the Japanese rose, planted in an ordinary rough hedge, will have a pretty effect when in bloom. See Selections.

On Banks.—Sunny banks may be turned to a pleasing account by planting them with Scotch roses, or the many lovely forms of the Wichuraiana roses described elsewhere. The shoots will trail about the bank, and soon cover it with a mass of growth, which will, in due season, reward you with a wealth of blossom.

On Trees.—We have seen some very charming examples of evergreen trees, like the mournful yew, for example, wreathed very prettily with the shoots of climbing roses. Where the evergreen tree is not of any great importance and has a dull, sombre appearance, free growing roses like the Dorothy Perkins, Aimée Vibert, Dundee Rambler, Bennett's Seedling, Félicité et Perpetue, and Multiflora, planted at the base in good soil, will soon find their way up through the branches and wreath the tree with masses of blossom which will look exceedingly pretty. In the case of conifers growing on lawns, get a petroleum cask cut in halves, bore plenty of holes in the bottom, sink one close to the side of the tree, fill it with good compost, and plant a rose therein. The shoots will soon cling to the conifer, thread their way among the mass of growth, and flower freely each year. The roses appear to do no serious harm to the conifers, while the effect of growing them thus is very pleasing. This plan need not be confined to evergreen trees, but may be extended with

equal success to deciduous trees and shrubs wherever a little colour is needed to brighten up a dull spot in summer time.

On Walls.—Except in the extreme south roses do well on walls. In the south it is not wise to try to grow them against south walls, as such a position is too hot for them. Generally speaking, the Boursault, Evergreen, and Ayrshire roses, are the only suitable kinds to grow on walls with a north aspect. A list of the varieties suited for various aspects will be found elsewhere. To grow roses really well on walls the roots must have good soil. It is useless trying to grow them in narrow, confined borders, or in tubs. A bed three feet wide, and at least two feet deep should be provided for each plant. Particular care must also be paid to proper pruning at the right time and according to the class of rose, likewise to keeping the foliage free from pests. Special note should be taken of the fact that Crimson Rambler is not adapted for culture against walls.

On Fences.—Any of the varieties recommended in the special lists elsewhere for walls may be grown against fences. Crimson Rambler will also do well on a south or south-west fence. Free-growing sorts like the latter, and Dundee Rambler, Bennett's Seedling, Longworth Rambler, Flora, etc., well grown, will make a charming feature in the garden. If stout rough posts of larch, oak, ash, etc., were placed at intervals along the fence, and the sorts advised for pillars planted against these, a still prettier effect will be obtained.

On Arbours.—Rustic arbours formed in corners of the garden may be made very pretty by covering them with free-flowering roses like Dundee Rambler, Flora, Dorothy Perkins, American Pillar, Bennett's Seedling, and Félicité-et-Perpétue. Let the shoots ramble just as they please over the roof and the sides, and the effect will be both picturesque and pretty.

In Beds.—Massed in beds roses always have a charming effect when in blossom. Here, of course, we are referring to roses grown for garden decoration, not to those cultivated for exhibition. What are wanted for this purpose are free-growing and free-flowering sorts that have a good constitution and will bloom as long a period as possible. The varieties that possess these characteristics are such of the Chinas as Laurette Messimy, Madame Eugène Resal, Fabvier, and the old

Monthly; of the Hybrid Teas as Grüss an Teplitz, Killarney, Marquise de Salisbury, Mrs. W. J. Grant, La France, Madame Ravary, Madame Pernet Ducher, Caroline Testout, Camoens, and Augustine Guinoisseau; of the Teas as Corallina, G. Nabonnand, Madame Hoste, Madame Jules Grolez, Madame Lambard, Marie Van Houtte, and Princess Sagan; Hybrid Perpetuals like Mrs. John Laing, and Mrs. Sharman Crawford; and Polyanthas like Marie Pavie, Mignonette, Perle d'Or, Cecile Brunner, Georges Pernet, and Anne Marie de Montravel. We are of opinion that the best effects are obtained by growing one kind only in a bed. A bed of Laurette Messimy, La France, Madame Jules Grolez, Mrs. John Laing, or of Cecile Brunner (the latter of course small) is bewitchingly pretty, especially so if carpeted with a variety of viola that will harmonise with the colour of the roses. The beds should be thoroughly prepared beforehand, so that the roses may do well from the first. They should be grown as dwarfs only, and if on their own roots so much the better. The dwarf polyanthas do well as edgings to the other kinds.

In Borders.—Here standards may be grown with better effect than in beds. Their ugly bare stems will not be so obtrusive as if grown in the latter. Here, also, the Cabbage, Damask, Moss, Monthly, and other free-growing sorts will be more at home. Do not overcrowd the plants. Give them plenty of room and they will not only grow but also flower more freely.

In Greenhouses.—Not one of the least important merits of the rose is its capability for growing and flowering freely under glass, with or without heat. Lists of varieties adapted for culture in pots and as climbers are given elsewhere in this book. If these are grown in accordance with the instruction given in the chapters devoted to pot and climbing roses under glass, the reader may command a succession of blooms from January to June, by which time those in the open garden will have begun to yield their harvest of blossoms, thus extending the rose season up to late in autumn. A skilful grower might, indeed, command a continued supply of rose blooms throughout the year. The main secret in rose growing under glass, is to get the wood well ripened and to so manage the pot plants that the grower has one set well ripened by autumn and another by December, then he can rely on getting a succession of bloom.

As Window Plants.—Many amateur gardeners, who have no garden or greenhouse to grow roses in the ordinary way, manage to grow some of the China and Tea roses successfully as window plants. A good type of rose for this purpose is the Fairy or Lawrenciana rose, which is described in the section dealing with the types of roses. These, and the dwarf Polyanthas like Cecil Brunner and Mignonette, make charming little pot plants for window culture. The Fairy roses are easily reared from seed, as will be seen by reference to the chapter on "Roses as Annuals."

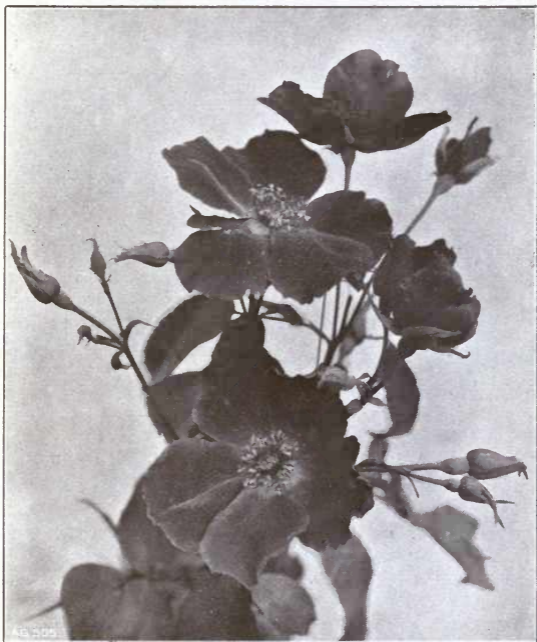


THE ROSERY OR ROSARIUM.

Most people are content to grow roses in ordinary beds or in special borders, or even in the mixed border with hardy plants. And there is, of course, a very good reason for this in gardens of limited extent, at any rate, as everyone wants naturally to make the best use of space and to grow as great a variety of vegetation as possible. But there are others favoured with more ample space, and who are keenly interested in the cultivation of the rose that may have a fancy for devoting a portion of the garden to these plants; in other words, having a Rose Garden, or Rosarium as it is sometimes called. Hitherto we have not attempted to specially cater for this phase of rose culture in this volume, but, as enquiries reach us from time to time asking for simple designs for small Rose Gardens, we have decided to include a chapter on, and plans for, a Rosery.

In very large gardens roseries are laid out on an elaborate scale, with numerous geometrical beds, gravel paths, box edgings, sundials, statuary, and so on. Such features are beyond the scope of this work. All we shall attempt to do is to give a few simple plans showing how groups of beds may be formed, either on the lawn or in some other suitable corner of the garden, for growing dwarf and standard roses in mixture, or arranged for colour effect, in conjunction with the more robust climbers grown on pillars or arches.

Two Types of Rose Gardens.—The designs given herewith are capable of being used in two ways—simply forming the beds on the lawn with grass paths between, or having gravel paths, and the beds edged with box, tiles, or, better still, a grass verge a foot or so in width. Unquestionably, the most natural and pleasing way is to have grass paths. The cool, green, refreshing turf forms a more beautiful and pleasing setting to the roses than gravel. Besides, the beds harmonise with the lawn, and form an integral part of it, whereas gravel paths have a cold and artificial look about



HYBRID TEA ROSE, "PRINCESS MARY."

A large crimson-scarlet single-flowered rose, suitable for massing in beds or growing as a standard. Very fragrant.



HYBRID TEA ROSE, "NELLIE PARKER."

A lovely creamy white garden or exhibition rose. Awarded Gold Medal,
N.R.S., 1916

them. Gravel paths are all very well when the Rose Garden is allocated to a special enclosure by itself, bounded by an evergreen hedge, by a hedge of Hybrid Sweet Briars or Japanese Roses, or a rustic trellis wreathed with climbing roses. Adopt them, then, by all means. Our advice, however, to the reader is, wherever possible, give preference to grass paths.

Designs.—Fig. 1 is a very simple style of Rose Garden, which would not take up much space. It consists of six beds, a central plot for a sundial or a pillar rose, and several paths. The two inner beds are 3ft. in width, and the four

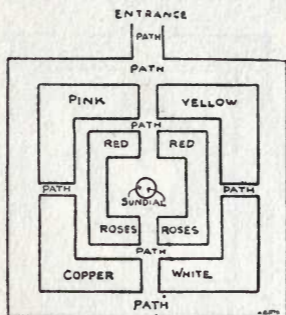


FIG. 1.—A SIMPLE ROSE GARDEN.

outer ones 4ft. wide. The inner paths are 2ft., and the outer ones 3ft. wide. They can either consist of gravel or turf, and the central plot can be of turf, or may be utilised as an additional bed. The roses can be arranged in separate colours, as indicated on plan, or be grown in mixture.

Fig. 2 is a slightly larger plan, suitable for a space 32 by 32ft. A is a central bed, 6ft.; B is of proportionate width, and C is 3ft. wide. The surrounding paths (D) are 3ft. wide, and intended to be turf. Spanning the four entrances (E) arches are suggested as appropriate features. In the centre bed A a pillar or a tall weeping rose could be grown with ordinary standards and dwarfs mixed around. B may be planted alternately with half-standards and dwarfs; C with dwarfs only. Such an arrangement would have a pretty

effect in summer. In each of the corners of the four outer beds a dwarf pillar or a standard rose would look well.

Fig. 3 is a slightly larger design intended for an area of 40 by 40ft. This also is intended for a lawn, the paths (F) being of turf. The central bed (A) is 8ft. wide; the four surrounding beds (B) 4ft., and the corner beds (D) also 4ft. wide. The four circular beds (C) are 4ft., and the four smaller ones (E) 3ft. wide. In the centre bed (A) plant a tall pillar rose, such as American Pillar, or a tall weeping standard, such as Dorothy Perkins, surrounded by standards

FIG. 2

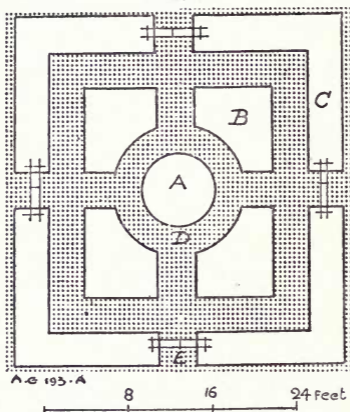


FIG. 2.—DESIGN FOR A SMALL ROSERY (32 BY 32 FT.).

and dwarfs; in the four circles (C), dwarf pillar roses, like Gruss an Teplitz, Zephirin Drouhin, Madame d'Arblay, and Pink Pearl; and in the four circles (E), ordinary standards, carpeted with dwarf polyantha roses. In beds (B) plant half-standards and dwarfs, and in beds (D) dwarfs.

Fig. 4 is a plain geometrical design, also suitable for lawns and requiring an area of about 48 by 48ft. The centre bed (A) is 8ft. in diameter; the four beds (C) 15ft. wide on the outsides; the oblong beds (D) 4ft., and the four circles (E) are also 4ft. in width. B indicates the paths, which are

3ft. wide. In the centre of (A) plant a tall weeping standard or a tall pillar rose; in the four circles (E) do the same. A dwarf pillar rose would also look well in the centre of each of the oblong beds (D). An arch might also span the four paths, as shown at F. The beds (A) and (C) plant with standards and dwarfs alternately, and the beds (D) with dwarfs only.

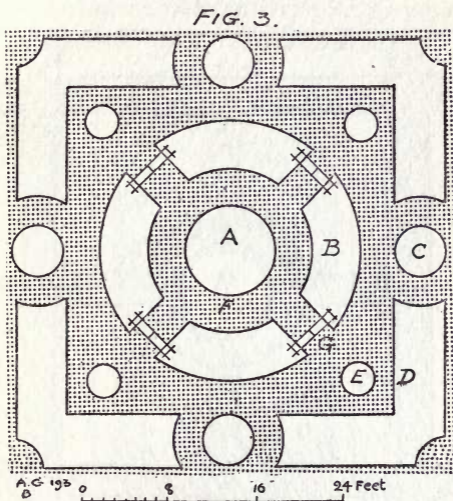


FIG. 3.—DESIGN FOR A ROSE GARDEN (40 BY 40 FT.).

Fig. 5 is a suitable design for an enclosed garden, bounded by a wall or hedge. AA shows the entrance and paths, which in this case are of gravel. B is a central bed, surrounded by a grass verge, 1ft. wide; C, D, and E, also beds surrounded by turf; F F are borders; G a group of standards, and H H are corner groups of roses. Weeping standards are shown on each lawn; the central bed contains a weeping standard, surrounded by half-standards and dwarfs; and the other beds are allocated to dwarfs. The outside borders are

also devoted to standards and dwarfs. An arch spans the entrance (A), and two other arches may be erected across the ends of the cross paths.

Fig. 6 represents a Rose Garden laid out in the Dutch style. The shaded portions are intended for paths paved with broken flag-stones, bricks, or tiles. The wider paths should be about 4ft. in width and the narrow ones 3ft. wide. The

FIG. 4.

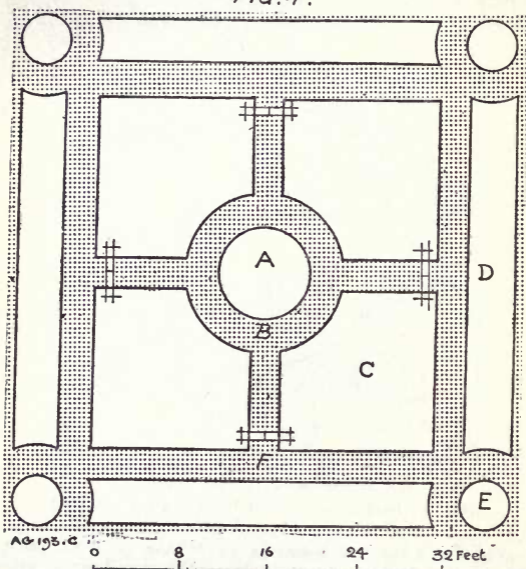


FIG. 4.—PLAN OF A ROSE GARDEN (48 BY 48 FT.).

unshaded portions represent beds. In the centre bed may be grown weeping and ordinary standard roses, interspersed with dwarfs. The four beds surrounding the centre one might be devoted to half-standards and dwarfs; the four corner ones with dwarf roses, and the outer beds with dwarf polyantha

roses. Or, if preferred, the whole of the beds might be utilised for growing one variety in each, arranged according to a defined colour scheme. The design is an appropriate one for a Rosery on a large or small scale. The boundary may be turf, or consist of a border 6 to 8 or more feet in width for growing Austrian Briars, Rugosas, Hybrid Sweet Briars, Moss, Damask, Cabbage, and other bushy-habited roses. In this case, the Rosery would be best surrounded by a yew hedge

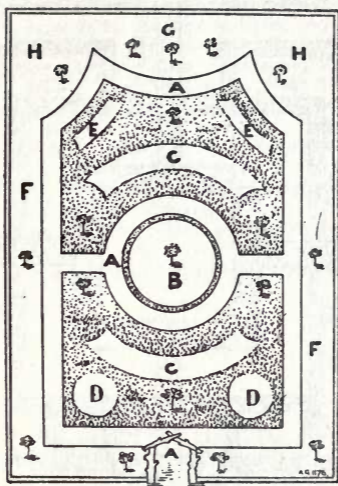


FIG. 5.—DESIGN FOR ENCLOSED ROSE GARDEN.

with openings opposite the ends of the four central wide paths. If broken stone flags are used for paving the paths, tufts of thymes, sedums, saxifrages, arenarias, etc., could be planted in the chinks, and thus add immensely to the charm of the Rosery.

General Remarks.—The plans given may be modified to suit slightly larger or smaller areas by increasing or diminishing the width of the beds. Gravel paths ought not to

be less than 3ft. in width, but grass paths may range from 2 to 4ft. in width.

The beds, of course, must be thoroughly prepared in the manner advised in the chapter on planting. A deep and rich medium or heavy, loamy soil is imperative for the successful cultivation of the rose.

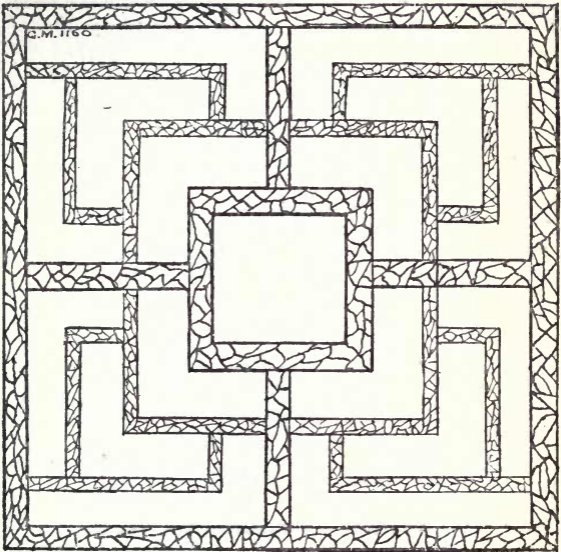


FIG. 6.—ROSE GARDEN IN DUTCH STYLE.

As regards the system of planting the beds, those who want to cultivate as large a variety as possible must perforce go in for mixtures of varieties such as will be found under the head of Decorative Roses in the selections elsewhere. Some, of course, may prefer to make a speciality of Teas or Hybrid Teas; others may like to grow sorts suitable for yielding buttonhole flowers; and others again to grow

those notable for their fragrance. Lists of each are given in the selections.

Some readers may, on the other hand, evince a partiality for growing one variety only in each bed, according to a defined colour scheme, as indicated in Fig. 1. It must be admitted that roses make a very effective display grown thus, but this means that only a limited number of varieties can be accommodated. Lists of roses arranged according to colour are given in the selections, but we may profitably mention a few here, classified according to their habit of growth, that are specially suitable for massing in beds: Dwarf Growers—Jessie, crimson-scarlet; Madame Jules Grolez, silvery-rose; Madame Ravary, orange-yellow; Richmond, light crimson; Mrs. Aaron Ward, yellow and white; and Orleans Rose, rosy-crimson. Medium Growers—Caroline Testout, warm pink; General McArthur, scarlet crimson; Lady Hillingdon, yellow; Prince de Bulgarie, rose and apricot; Lady Roberts, apricot and copper; and Lady Quartus, Ewart, white. Tall Growers—Hugh Dickson, crimson; Madame Abel Chatenay, salmon-pink; Frau Karl Druschki, white; Dorothy Page Roberts, coppery-pink; La Tosca, blush white; and Gruss an Teplitz, dark crimson. Crimson, pink, rose, red, yellow, and white sorts generally make a pleasing harmony of colour.



PROPAGATION OF ROSES.

By Seed.—Seeds may be purchased, or procured from the hips or fruits of good sorts of roses. When ripe and softening, the hips must be gathered, buried in damp sand (somewhere safe from rats and mice) and left till spring, by which time the pulp will have decayed, and the seed may be easily separated

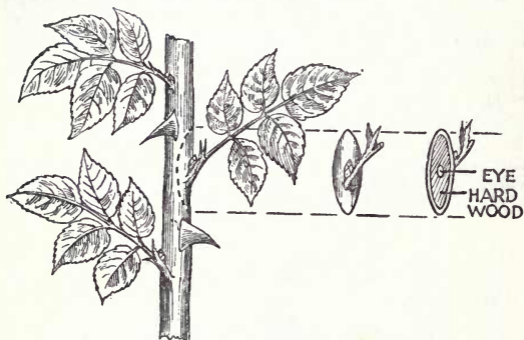


FIG. 1.—HOW TO SELECT THE BUD.

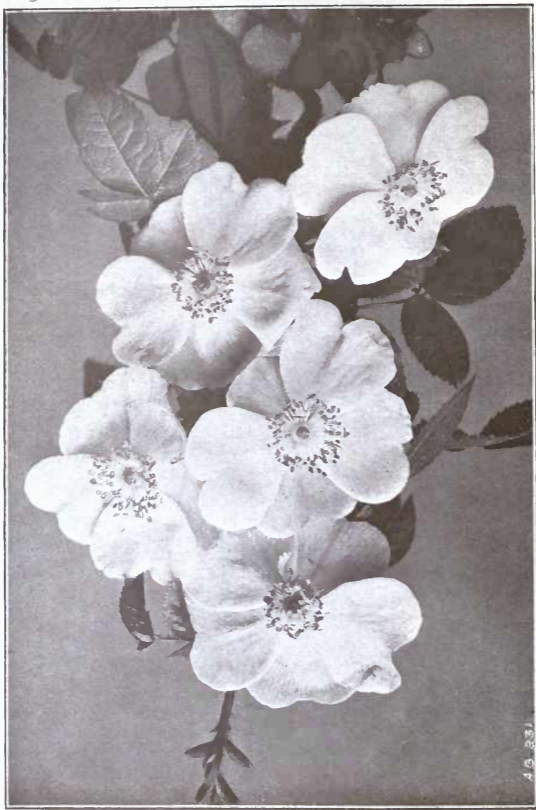
After selecting a suitable bud proceed to remove it as indicated by dotted lines on the shoot. The leaf should next be cut off as shown by specimen on the right hand. The third illustration shows the under side of a bud, its eye or base, and the hard wood which has to be removed.

and sown thinly in drills about a foot apart. Another plan is to rub out the seeds as soon as they are gathered and sow them at once. Some of the seeds will germinate the first year, but not all, and probably not the best of them, so the seed rows must not be dug up for at least eighteen months after sowing; any plants, however, which become big enough for transplanting the first year must be carefully lifted out with most of their roots intact and put into nursery rows, where they should be



MULTIFLORA ROSE, "QUEEN ALEXANDRA."

A vigorous growing and free flowering single climbing rose, suitable for pillars or arches.
Colour, a rich rose.



HYBRID SWEET BRIAR ROSE, "ROSE BRADWARDINE,"

A single-flowered vigorous growing rose, suitable for growing as a bush or hedge. Colour, clear rose.

protected during the first winter with some suitable surface mulching. This transplanting should take place in October or early in November, to allow time for a certain amount of root action taking place before winter sets in. The second year all the plants in the seed row may be served the same way, for seeds which have not germinated by this time will be worthless. This batch should be most carefully looked after, as it will probably contain the best of the seedlings. A year or even two may elapse before any flowers appear, and even then the first flowers must not induce us to condemn the plants, unless the colour is bad, for most of the best varieties come semi-double the first time they flower.

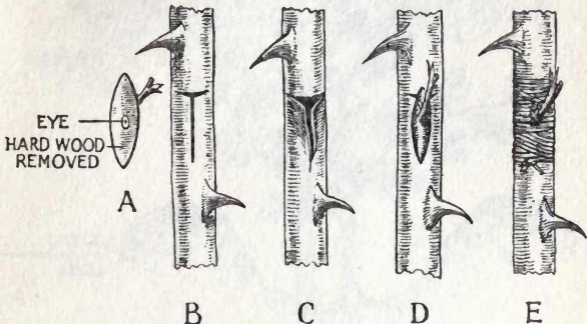


FIG. 2.—THE OPERATION OF BUDDING.

A. Shows the bud or shield prepared for insertion. B. The T-shaped incision made in the bark of the shoot. C. The bark raised for receiving the bud. D. The bud inserted. E. The bud duly secured by a ligature of bast.

By Budding.—This method of propagation is best performed in July, and during showery weather if possible. For standards, plant hedgerow briars the previous autumn, and for dwarfs the seedling or cutting briar. Manetti and De la Grifferaie stocks should be planted at the same time. All the dwarf stocks should be cut down close to the ground in March. In the case of standards, do not allow more than three shoots to form on each plant. When the bark is firm enough to be easily raised from the wood the stock is ready, and similarly will the buds be when they assume a plump appearance, but have not started into growth. The first thing is to see

about the bud. (Fig. 1.) Examine a healthy shoot of the kind you wish to take the bud from, and select a bud that is fairly plump. Cut off the shoot first, then remove the bud with a portion of the bark and wood attached. On turning the bud over a small portion of woody matter will be found, and this must be carefully removed. If, on removing the wood, a small cavity be left at the base of the bud, the latter is useless; but if the base be perfectly level with the inside of the bark, the bud will be all right. Holding the bud in the mouth to keep it moist, next proceed to gently raise the bark of the stock. First of all make a

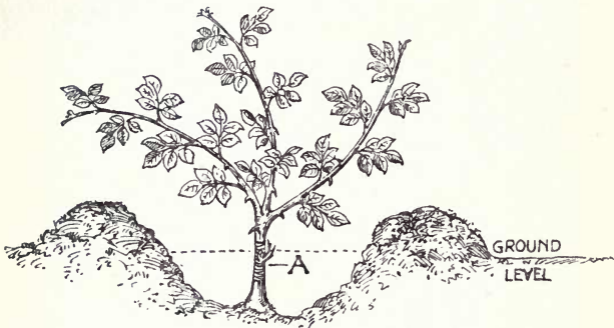


FIG. 3.—BUDDING A DWARF BRIAR.

The soil around the base of the main stem has first to be excavated to a depth of 3 or 4 in., then the bud inserted in main stem as shown at A.

T-like incision in the bark, as shown at B, Fig. 2, then with the ivory blade of the knife raise the bark, as shown at C, and next insert the bud, A, as illustrated at D. If the upper part projects above the cross slit, cut it off level with the latter, and then get some soft yarn or bast, and tie this round moderately firm, both above and below the bud, as shown by example E. In the course of three or four weeks the buds should be examined, and the ties loosened if necessary, to allow the bark to swell and unite over the shield. Tight tying is very injurious, and lacerating of the bark unnecessarily often causes the death of the buds. Fig. 3 illustrates the method of budding a dwarf briar. The soil is first re-

moved from the base of the stem, and the bud inserted at A. Fig. 4 depicts how to bud a standard briar. The buds are inserted close to the base of shoots of the current year's growth.

By Grafting.—Grafting is very rarely carried out in the open air, as it is not nearly so certain as the other methods

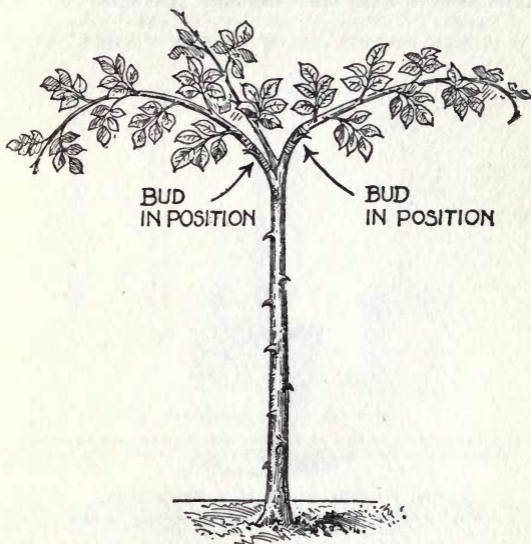


FIG. 4.—BUDDING A STANDARD BRIAR.
Arrows indicate position where to insert the buds.

of propagation, and grafted plants have a knack of dying off suddenly and without apparent cause. It is, however, useful for establishing roses, as it were, by express, and for getting good plants within the year, as may be easily done by operating under glass. Whip grafting is the most simple and certain method where stock and scion are about a size, and crown or

cleft grafting when the stock is much bigger than the scion. The operation is carried out in exactly the same way as it is with fruit and other trees, but more care must be taken in selecting the scions, for young rose wood is generally pithy, and this is useless for grafting. A good deal of waste takes place, as the whole of the upper portion of the young shoot must be discarded, simply retaining for scions the well-ripened lower portions which show but little pith when cut. The



FIG. 5.—HOW TO GRAFT A BRIAR ROSE.

The Briar stock cut back in readiness for receiving the scion.

stocks may be slightly active, just moving out of their winter's rest, but the scions must be still quite dormant. If a genial moist atmosphere can be maintained round the plants after grafting, wax or clay may be dispensed with entirely and with advantage, but the scions must be well tied on, and no portion of the cuts exposed entirely to the air. Where grafting takes place low down on the stock, a little soil heaped over the point of union will be beneficial. Rose grafting should be carried out under glass in February, or even earlier in the year. The

seedling briar forms the best stock for most roses. There is no better stock than this for most kinds of roses, especially the tea-scented kinds. These little stocks should have been cultivated at least twelve months in 3½-in. pots, and should have been kept plunged in ashes or cocoanut-fibre refuse in an open position. Fig. 5 is the stock which has to be cut back at point indicated by the sloping line. Fig. 6 illustrates the actual grafting. I. is a side and front view of the scion furnished with three dormant buds, and with the lower end cut off in a sloping direction. II. shows the position for joining the scion to the stock, and III. the scion firmly bound

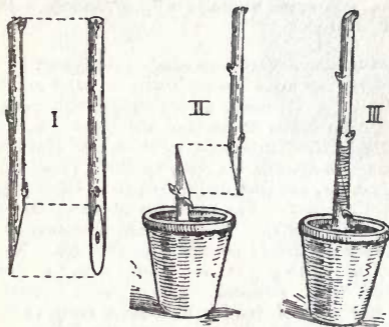


FIG. 6.—OPERATION OF GRAFTING.

I. Side and front view of scion prepared for grafting. II. Position for placing scion on the stock. III. Scion affixed to the stock and secured by a ligature of bast.

to the stock with bast or worsted. The next thing will be finding a suitable position for the grafted plants, for they require to be kept in a close case until the union has taken place. A close case may be made by placing a box on a stage over the hot-water pipes, half filled with cocoanut-fibre refuse, and in this plunge the pots, and over these place a sheet of glass made to fit closely; this must be shaded for a while. Damp is the great thing to be guarded against. In order to keep this out of the case, remove the glass each morning and wipe dry and return at once. The whole matter is simple, and fair success may

be expected if the few details are carried out as here explained. The stocks should be taken into the greenhouse ten days in advance of the operation, in order to get the sap to move a little. The stock should be cut as low down as is possible, in fact, close on to the roots. The advantage of this will be that, supposing the young plants are to be either grown as pot plants or planted out in the open, they can be planted below the union, and roots will push out from this particular point, and the plant will in time be independent of the stock. As soon as a perfect union has taken place, admit air freely, but shade from bright sun for some days, and gradually harden the plants off. Mildew will most likely put in an appearance and must be dealt with promptly. Dust with flowers of sulphur.

By Cuttings.—Roses are easily propagated by cuttings, and many of the more robust kinds do well on their own roots. But there are many of the choicer and more delicate sorts which are better budded on the briar. As a rule, all the Multiflora and Wichuraiana varieties may easily be reared from cuttings inserted in the open border. Teas, Chinas, and dwarf Polyanthas are best reared in pots. Other types insert in sheltered borders. The best time to put in the cuttings is September and October. Well ripened side shoots that have not borne flowers should be chosen as cuttings. No. 1, Fig. 7, shows a cutting; it is made with a portion of the parent stem attached, known as a "heel." The object of this piece of wood is to cause a callus to form more surely than would be the case were the cuttings made in the ordinary way. Place a sharp knife one inch below the cutting, and take a sweeping cut, as shown, one-third through the parent stem. The choice of cuttings is very important; do not select those which are in active growth, but those which have quite finished and become solid, or well matured. The cuttings should have the lower leaves removed, and be eight to twelve inches in length. The ends should be shortened, but the three or four top leaves should remain. These will assist rapid root action.

The best place for the cuttings is under a north wall, or hedge. A nursery bed should be carefully prepared by digging deeply and thoroughly; work in abundance of sharp grit, or road sand, as the digging proceeds. After this is completed time should be allowed for the surface to dry, when it should be carefully trodden down firmly. There are two ways of

inserting the cuttings—by putting them in with the dibber, and by what is called “nicking” them in. The first is performed much in the same way as for cabbage plants. The latter is shown at 3, Fig. 7. This is much the best way, in our opinion, as there is not the danger of the cuttings being hung, which often happens with cuttings and plants put in

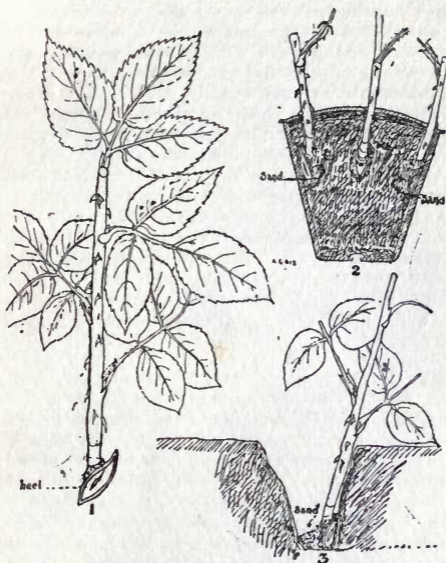


FIG. 7.—PROPAGATING ROSES BY CUTTINGS.

REFERENCES.—Fig. 1, A properly made cutting; Fig. 2, Section of cutting pot; Fig. 3, Cutting inserted in outdoor bed.

in the former way. The distance between the rows should be fifteen inches; this will allow ample space for hoeing and weeding. The line should be strained tightly across the bed, and the “nick” or shallow trench be taken out by thrusting the spade straight down by the side of the line, taking care

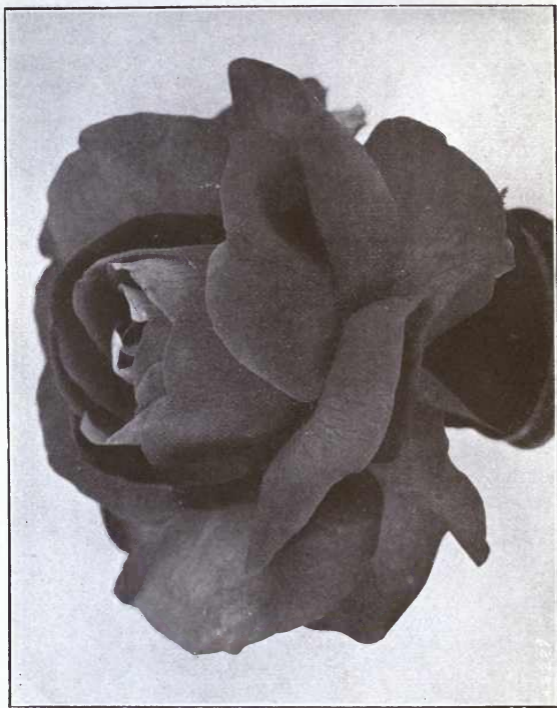
that the back of the spade is kept perfectly clean, in order that the back of the trench is not torn about, but left quite smooth. It should not be less than five to six inches in depth; a layer of the coarse grit or sand should be placed in the trench, and the base of the cuttings rest on this. The distance between each cutting should be six inches. The soil should be returned and firmly trod about the cuttings with the boot. After treading, place a little more soil on the top, but this must be left loose, and should not be trodden down under any circumstances. The cuttings will quickly form a callus, and will then be safe, but probably will not form roots till spring, unless the winter be exceptionally mild. Therefore, they should not be disturbed until the following autumn. During the summer the hoe should be frequently run through them; this will be of the greatest assistance. Not only is this necessary, to keep them free from weeds, but it is absolutely necessary for the production of healthy and abundant roots and bushy plants. Some of these cuttings will flower, if allowed to do so, but we strongly recommend pinching all buds off as fast as they appear. This will greatly assist the plants to become bushy by the autumn, when they should be removed either to their permanent quarters, or to other nursery beds, according to the progress they have made during the summer.

Rooting the cuttings in pots is often done, and with excellent results. We have often rooted a good batch in this way, and if the following items are attended to, splendid plants can be quickly grown. Take the side shoots from plants which have been gently forced in pots, as already explained, insert them in four-inch pots, as shown; six cuttings in this size pot is enough. Prepare the pots, as shown in Fig. 7; see that ample drainage has been provided. Finely sifted gritty soil is the best, and place a layer of sand on the surface, some of which will be carried down by the dibber. One word about this tool; never make a dibber with a point, always with a blunt end. There is always the danger of hanging the cuttings if a pointed dibber be used. In fact, rarely does a cutting reach the bottom of the holes made by a pointed dibber, and a great percentage of cuttings must perish under such conditions. A good place in which to root the cuttings is a spent cucumber frame. Here they will root very quickly. Plunge the pots half their depth in the bed, and shut them up closely; shade from sun; keep the bed fairly moist by



AUSTRIAN HYBRID ROSE, "WILLOWMERE."

A beautiful rose for growing as a bush or massing in beds.
Colour, peach-pink.



HYBRID TEA, "AUGUSTUS HARTMANN."

A fine exhibition or garden rose. Colour, carmine-red, flushed with orange.
Awarded the Gold Medal of the National Rose Society in 1914.

syringing lightly on sunny days, and root-action will soon be set up. After the cuttings are well rooted, they should be potted into three and a-half inch pots and returned to the frame, and kept close for a few days, when more air should be gradually given, and eventually fully exposed. These plants may either be planted or grown on in the pots for forcing, which they will do splendidly, and really fine flowers had from them for Easter decoration. We have grown many hundreds in this way, and found them to force well. Of course, the same remarks apply to pot roses as to those



FIG. 8.—ROSE SHOOT WITH "EYE."

planted out, viz., all kinds will not succeed equally well on their own roots, and consequently experience is required in the selection. The following, however, will do well: W. A. Richardson, Maréchal Niel, Gloire de Dijon, Mrs. J. Laing, Souvenir d'un Ami, Souvenir de S. A. Prince, Caroline Testout, Margaret Dickson, Boule de Neige, Madame Falcot, The Bride, Catherine Mermet, Madame Lambard, and Jules Margottin.

By Layering.—This is one of the most simple methods of rose propagation, and in this way we may soon establish big bushes without trouble in providing stocks. Good shoots

must be chosen early in summer, and at a convenient place the stem should be cut half through on the under side, the blade of the knife should then be turned so as to make a longitudinal cut upwards for an inch or more through the centre of the shoot, which should then be firmly pegged into a notch made in the soil with a spade and the cut portion well buried, the whole operation being precisely similar to that of layering a carnation. By October roots will have been formed, and the shoot may be entirely severed from the parent and removed to the spot selected for its home. It is well, however, to make sure that roots have been formed before the shoot is severed, which may be found out by carefully removing a little soil near the buried stem. as some varieties take two

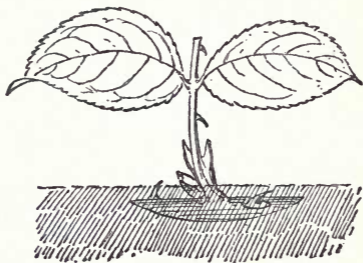


FIG. 9.—“EYE” INSERTED.

seasons before sufficient roots have been formed to make the plant self-supporting.

By Suckers.—Suckers are frequently made by own-root roses, and these form a convenient means of obtaining new plants. The reader must be careful, though, that it is a rose he is getting, as cases have been known where a briar or Manetti shoot has been fondly cherished for years with the idea that it was a garden rose and that some day it would produce double blooms. In taking suckers from the parent plant it is wise to remove the surrounding soil until a convenient place for severance can be seen. If a root or two be found on the sucker itself it should be cut below these, but if not, then it is necessary to trace it home to the old root-stock and remove a portion of this with the sucker.

By Division.—Some few roses which naturally produce many shoots from the same tuft may be propagated by division, and in this way we get most of our Scotch, Fairy, and China roses and Austrian briars; nearly every shoot of these can be depended on to have some roots attached, and each of these will form a plant in itself. Division of roses scarcely needs describing, but it is well to bear in mind that the best method is to lift a big clump and carefully wash the soil from the roots, as we can then see exactly where to sever the roots to the best advantage, and all mutilated pieces may be easily cut away.

By Eyes or Buds.—Propagation by “eyes” is seldom attempted in this country, and it is at the best a tedious process. It is really a striking of buds, and simply a development of striking by cuttings, each cutting consisting of one leaf and one bud cut out as we should cut it for budding (Fig. 8), but leaving the wood attached instead of pulling it out; in this form the bits (Fig. 9) are put into a cutting-pot placed in heat, and coaxed into root and top-growth by considerable coddling. This method is to be recommended only in case of new or scarce varieties.



STOCKS FOR ROSES.

THE subject of stocks for budding or grafting roses is of very great importance from the cultivator's point of view. By the term stock is meant the plant which has to serve the purpose of acting as a foster-parent to the cultivated rose. It is true we may grow roses without the aid of a foster-parent; that is, we may rear our plants from seed, cuttings, eyes, layers, suckers, or division, but if we require to get good plants quickly of the better varieties of the roses, and to secure the finest flowers within a reasonable space of time we must have resort to stocks to achieve the object of our ambition. As a rule, the stocks used for budding or grafting are of a hardier and more robust habit of growth than the majority of cultivated roses, and hence, by uniting the latter to the former, we infuse, so to speak, the virility and vigour of the foster-parent into its child—the more tender and delicate rose we all love, cherish, and admire. As the immortal bard truly says:

“ You see, sweet maid, we marry
A gentle scion to the wildest stock;
And make conceive a bark of baser kind
By bud of nobler race.”

Granted, then, that stocks serve a very useful purpose in the successful pursuit of cultivating the rose to its highest state of perfection, we have now to consider the question of what are the various and most useful kinds to select for our purpose. This we will now do.

Seedling Briar.—This is the Dog Rose (*Rosa canina*) of our hedgerows, reared from seed collected from the scarlet fruits or heps, which grow so plentifully on the former in autumn. The Dog Rose is a vigorous-habited plant, growing chiefly in heavy or clayey soils, and producing strong shoots or suckers three or more feet in length in one season. It has narrow toothed leaflets, either downy or glabrous on the under-sides, and with simply or doubly-toothed margins.

The number of leaflets to each leaf number five to seven, and the shoots have curved or hooked prickles analogous to dog's teeth, hence the common name. The flowers are large, pink or white, succeeded by scarlet fruits or hips. Dog Roses, however, vary a good deal in character. The root stock is woody or knotty at the base, and often furnished with latent growth buds, which, if not removed at the time of planting, will give birth later on to suckers. Being a native plant it is naturally adapted to all soils, except light or sandy ones, also to the climate, and roses thrive better on it as a stock than on foreign ones.

The Seedling Briar has one disadvantage; it is rather irregular in its stem, and hence difficult sometimes to bud satisfactorily, although it is all right for grafting. Hybrid Perpetuals, Hybrid Teas, Teas, Noisettes, and most roses do well on this stock. It is easily reared from seed. The hips should be collected late in autumn or in winter, and the seeds extracted and placed in a closed tin box to prevent them getting dry. Those gathered in autumn should be sown at once in moderately heavy soil, an inch apart, in drills an inch deep, and a foot apart. Those gathered in winter sow similarly in March. Most of the seeds will germinate the first year, others not till the following one. Those that appear the first year should be lifted in October and replanted in soil that has had some grit and decayed vegetable matter mixed with it. Each seedling has a long tap-root, and this must be shortened about half-way to induce it to produce lateral roots. Plant the seedlings 4in. deep and a foot apart in rows two feet apart, and draw the soil up around them for a couple of inches or so to protect the stems, and keep them moist. The strongest of the stocks will be ready for budding in July, the weaker ones remaining another year. Roses budded on the Seedling Briar do not flower so early in the next season as those budded on the cutting briar, but that is a matter that concerns exhibitors chiefly who want early blooms for show.

Cutting Briar.—This is the most popular stock of all for rose budding or grafting. It has a clean, straight stem, and hence is easily budded, and roses worked thereon generally prove good autumn bloomers. All classes of roses do well on it. Like the preceding stock, this also is reared from the Wild Dog Rose, and is specially suited for a medium or a heavy soil. Generally speaking, briars reared from cuttings

have more fibrous roots than seedlings, and hence are more suitable for medium or delicate growing roses.

Cuttings should be selected in October and November from well-ripened shoots taken from existing stocks or wild plants. They should be about 9ins. long, have their base cut off close to a joint, and the soft ends cut back to a plump dormant bud. All the prickles should be removed, also all buds, except those at the apex. On no account insert cuttings with a heel of old wood attached, as this is bound to give birth to suckers later on. Select an open piece of ground for the cutting bed, and fork in some decayed vegetable matter and grit, then open vertical trenches 6in. deep and 2ft. apart. In the bottom of the trenches place a couple of inches of grit, arrange the cuttings 3in. apart, and push their ends well into the grit, then fill up with soil, and tread firmly. Keep the soil well hoed between the cuttings. The following October lift the rooted plants, cut any lateral shoots that have formed back to a couple of buds, and also remove any roots, other than those at the base, then plant the roots 3in. deep and a foot apart in rows 2ft. asunder. Draw the soil up to a height of 3in. on each side, as though moulding potatoes, and then the stocks will be ready the following July for budding. Some growers lift the stocks in November, heel them in soil till February, then plant, this plan being considered a beneficial one in retarding the growth of the stock.

Standard Briar. — Briars to form half-standards, standards, and tall or weeping standards are obtained by collecting suckers or plants of the Dog Rose from hedges and thickets in autumn and winter. These should have a clear, straight stem, varying from 3ft. to 8ft. in length, and averaging $\frac{3}{4}$ in. in diameter. As far as possible shoots should be a year old. Each such plant is furnished with a woody, more or less knobby, root-stock, in some cases resembling the handle of a walking stick. This knob is liable to be furnished with incipient growth buds, which, when planted, might develop into suckers. If there are any signs of buds visible, cut them clean off with a knife. The stems should next be shortened to 3ft. for half-standards, 4ft. for standards, and 6 to 8ft. for tall standards. In each case cut back to a dormant bud. Having secured the stocks plant their roots 6in. deep and 1ft. apart in rows 3ft. asunder. Tread the soil firmly. The following spring allow

three young shoots to grow near the apex, and remove all others. The shoots retained will be ready for budding in July.

Manetti.—This stock is of Italian origin. It was raised by a Signor Manetti from seed in 1837, and some years later was introduced into this country. The plant has leaves composed of seven leaflets of a bright green colour. The shoots, especially the younger ones, are of a dark-reddish hue, and furnished with bright rosy large and small prickles, arranged alternately. The flowers are single, pink, and average 2in. in diameter. Of vigorous growth. For many years this was a popular dwarf stock for budding, because, owing to the sap running so freely, even in dry seasons, the buds easily united, and budding could be practised as late as September. Moreover, roses budded on the Manetti make strong plants the first year, and unscrupulous nurserymen take advantage of this fact to produce "fat" plants quickly. It is now regarded as not a suitable stock for Teas, Hybrid Teas, etc., because such plants are usually short-lived. Its use nowadays is confined chiefly to the Hybrid Perpetuals, and also as a stock for grafting purposes, because of its easy propagation. The Manetti is adapted for light or medium soils only; useless on heavy soils. Roses worked on this stock flower earlier than those on the seedling or cutting briar. The roots of the Manetti are more numerous and finer than those of the briars.

De la Grifferæ.—This is a variety of the Rambler type (Multiflora). It is of climbing habit, has fine leaflets, long-jointed, smooth green shoots, furnished with prickles and pale green more or less rough, leathery leaves. It is used chiefly as a stock for the Gloire de Dijon race, and Climbing Teas and Noisettes. Easily reared from cuttings as advised for the Cutting Briar.

Laxa.—The Siberian Rose (*Rosa laxa*) has also been tried as a stock for dwarf roses, but, so far as we can ascertain, it has not proved a very popular or successful substitute for the Dog Rose. It has slender, prickly shoots, and doubly serrated leaves, shining above and hairy beneath. It is not a stock that we can recommend for use, except on very light soils.

Final Conclusions.—To sum up, the Seedling Briar has long fine surface fibrous roots, which descend deeply into the soil. On this account, it is suitable for deeply-dug

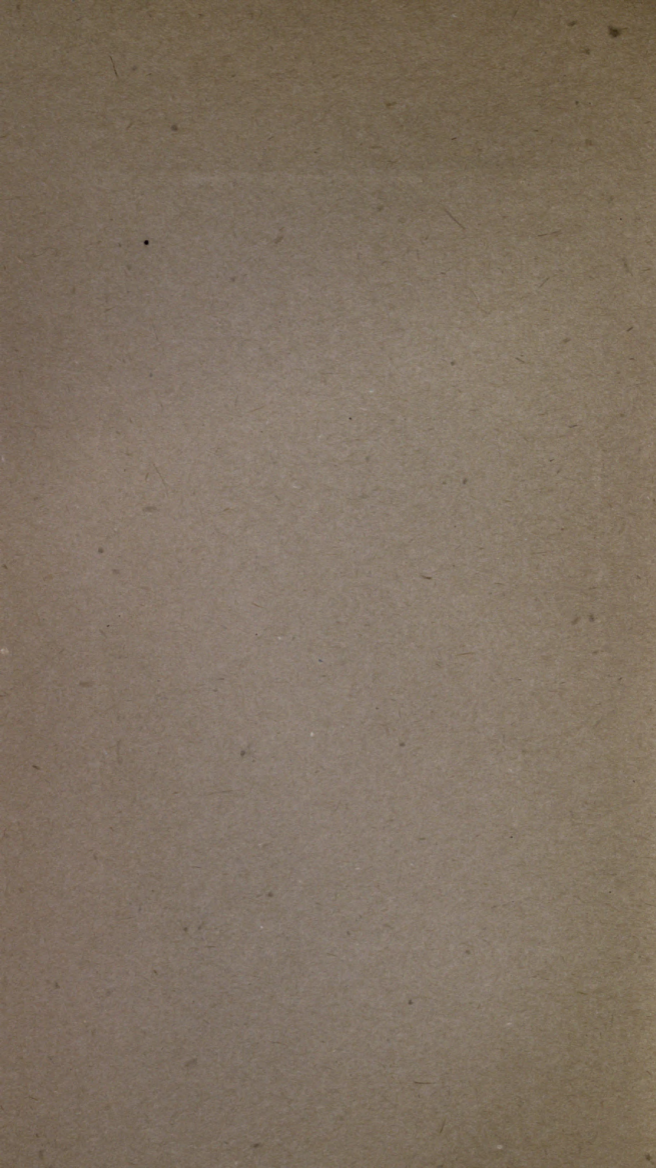
and heavy soils. Specially suitable as a dwarf stock for Teas and Hybrid Teas. The Cutting Briar has also fairly robust, thong-like roots, which, however, are liberally furnished at the crown, as well as lower down, with fibrous roots. It is comparatively shallow rooting, has a good constitution, and is long-lived, hence is the best all-round dwarf stock for Hybrid Perpetuals, Hybrid Teas, Teas, Chinas, Bourbons, Mosses, Austrians, etc. The Manetti, as previously explained, has gone out of favour; it is useless for Teas, Hybrid Teas, Chinas, etc., and is only suitable for Hybrid Perpetuals on light soils. As regards standard briars, these are excellent for Hybrid Perpetuals, Hybrid Teas, Teas, Noisettes, Hybrid Chinas, Bourbons, and Rambler and Wichuraiana and other roses grown as weeping standards, but, of course, are suitable only for medium or heavy soils. Stocks for standards are usually collected in autumn and winter by men who have had experience in such work, the average cost being 8s. per 1,000. Readers who are unable to get stocks locally are advised to apply to rose specialists.





JAPANESE ROSE, "CONRAD F. MEYER."

**A climbing variety of *Rosa rugosa*. Colour, silvery rose.
Very fragrant.**



SELECTIONS OF ROSES.

IN the following pages we give selections of roses of all types for various purposes. These include varieties for walls of various aspects, arranged according to the principal colours; climbers for arches, pergolas, pillars, and greenhouses; for buttonholes, pot culture, town gardens, weeping standards, standards, edgings, banks, hedges, and garden decoration, exhibition, and for pegging down; also the most fragrant sorts, and those which have had the honour of winning the N.R.S. Gold Medals. For other varieties see the classified list at the end of this volume:—

1.—FOR WALLS.

Climbers for a South Wall.

Banksia alba, white.	Henriette de Beauvean, yellow.
Banksia lutea, yellow.	Lamarque, white and lemon.
Bracteata Macartney, white (single).	Madame Alfred Carrière, white.
Climbing La France, rose.	Marie Van Houtte, lemon-yellow and rose.
Climbing Liberty, crimson. [pink.	Reve d'Or, yellow.
Climbing Mrs. W. J. Grant, rosy- white.	Reine Marie Henriette, cherry rose.
Climbing White Maman Cochet, white.	Tea Rambler, coppery-pink.
Francois Crousse, crimson.	

Climbers for a West Wall.

Bardou Job, deep crimson.	Madame Jules Gravecaux, rosy- peach and yellow.
Billiard et Barré, deep yellow.	Noella Nabonnand, dark crimson.
Blairii, No. 2, rosy-blush.	Ophrie, apricot-yellow.
Céline Forestier, pale yellow.	Reine Olga de Wurtemberg, rose crimson.
Climbing Aimée Vibert, white.	Souvenir de Leonie Viennot, yellow, amber, and cochineal.
Claire Jacquier, nankeen-yellow.	William Allen Richardson, orange.
Climbing Perle des Jardins, straw- yellow.	Zephirine Drouhin, carmine-pink.
Madame Bérard, salmon.	

Climbers for an East Wall.

Ards Rover, crimson-maroon.	Climbing Kaiserin Augusta Victoria, primrose.
Bouquet d'Or, yellow.	Conrad F. Meyer, silvery-rose.
Climbing Caroline Testout, satin rose	Gloire de Dijon, buff.
Climbing Cramoisie Supérieure, crimson.	

Climbers for a North Wall.

Bennett's Seedling, white.	Gloire de Dijon, buff.
Dundee Rambler, white and pink.	René André, red and orange (single).
Félicité-et-Perpétue, white.	

HYBRID TEAS.

Auguste Rodrigues.
George Reimers.
Hector Mackenzie.
Iona.
La France de '89.
Louise Lilia.
Marguerite Appert.
Milady.
President Vignet.
Reine Marie Henriette.
Richmond.

HYBRID TEAS.

Ards Pillar.
Avoca.
Comte de Rochéimer.
Charles J. Grahame.
Cherry Ripe.
Crimson Crown.
Crimson Emblem.
Dora Van Tets.
Earl of Gosford.
Effective.
Etoile de France.
Exquisite.
Florence H. Veitch.
François Crousse.
General McArthur.
Gruss au Teplitz.
H. E. Richardson.
King George V.
Lady Battersea.
Leslie Holland.
Liberty.
Lieutenant Chaure.
Longworth Rambler.
Marquise de Salisbury.
Mary, Countess of
Ilchester.
Mrs. Edward Powell.

HYBRID TEAS.

Aimée Cochet.
Alice Cory Wright.
Caroline Testout.
Craenta.
Danmark.
Duchess of Albany.
Elizabeth.
Florence Spaul.
Francis Chatteris Seaton

Red Roses.**TEA.**

Dr. Rouges.

HYBRID PERPETUALS.

Alfred Columb.
Auguste Ricotard.
Charles Lamb.
Gloire de Margottin.
Paula Clegg.
Tom Wood.
Ulrich Brunner.

Grimson Roses.**HYBRID TEAS—contd.**

Mrs. Foster.
Princess Bonnie.
Red Letter Day.
Reine Olga de Wurtem-
Rheia Reid. [burg.

TEAS.

Princesse de Sagan.
Souvenir de Therese
Warrior. Levet.

HYBRID PERPETUALS.

Alfred K. Williams.
Beauty of Waltham.
Ben Cant.
Camille Bernardin.
Charles Darwin.
Charles Lefebvre.
Commander Jules
Gravereaux.

Crown Prince.
Dr. Andry.
Duke of Connaught.
Duke of Wellington.
Earl of Dufferin.
Exposition de Brie.
Fisher Holmes.
General Jacqueminot.

Pink Roses.**HYBRID TEAS—contd.**

H. Armytage Moore.
Hon. Ina Bingham.
Irish Glory.
James Ferguson.
Jonkeer J. L. Mock.
Lady Barham.
Lady Reay.
Lady Ursula.
Lina Schmidt-Michel.

DAMASK.

Old Red Damask.

POMPON.

Red Pet.

RUGOSAS.

Mrs. Anthony Waterer.
Souvenir de Pierre
Leperdrieux.

WICHURAIANA.

Sodenia.

HYBRID PERPETUALS**—contd.**

Gloire de Chedane-
Guinoisseau.
Horace Vernet.
Hugh Dickson.
Lady Helen Stewart.
Madame Hausmann.
Mme. Victor Verdier.
Prince Arthur.
Senateur Vaisse.
Victor Hugo.
Xavier Olibo.

MULTIFLORA.

Winter Cheer.

CHINA.

Cramoisie Supérieure.
Field Marshal.
Le Vesuve.
Old Crimson.

HYBRID CHINA.

Fulgens.

WICHURAIANAS.

Crimson Rambler.
Philadelphia Rambler.
The Lion.
Wallflower.

HYBRID TEAS—contd.

Margaret.
Marquise de Ganay.
Mrs. Bryce Allen.
Mrs. E. Alford.
Mrs. David Jardine.
Mrs. Joseph H. Welch.
Mrs. W. J. Grant.
Mrs. Wilfred Lloyd.

Roses for Pot Culture.**HYBRID TEAS.**

British Queen, white.
 Caroline Testout, pink.
 Countess of Shaftesbury, carmine
 and pink.
 Duchess of Westminster, roseadder
 Edward Mawley, crimson.
 Francis Chatteris Seaton, rose-pink.
 George Reimers, red.
 Kaiserin Augusta Victoria, primrose.
 Killarney, white and pink.
 Lady Alice Stanley, coral-pink.
 Lady Barham, orange-pink.
 Lady Greenall, saffron-orange
 and creamy-white.
 Lady Pirrie, reddish-salmon
 and apricot.
 La France, silvery-pink.
 Liberty, crimson.
 Lieutenant Chauré, crimson.
 Madame Melaine Soupert, salmon-
 yellow and carmine.
 Madame Ravary, yellow.
 Mme. Abel Chatenay, carmine-rose.
 Mrs. A. R. Waddell, red and salmon.
 Mrs. George Shawyer, rose-pink.
 Mrs. W. J. Grant, pink.
 Papa Gontier, crimson.
 Prince de Bulgarie, flesh and
 Richmond, scarlet. [salmon].
 White Killarney, white.

HYBRID TEAS—continued.

Viscountess Enfield, coppery-rose
 and yellow.
 Viscountess Folkestone, creamy-
 pink.

TEAS.

Alexander Hill Gray, yellow.
 Bridesmaid, pink.
 Catherine Mermet, flesh.
 Lady Hillingdon, yellow.
 Lady Roberts, apricot.
 Madame Hoste, yellowish-white.
 Maman Cochet, carmine, salmon,
 [and yellow].
 Mrs. Herbert Stevens, fawn
 Safrano, apricot. [and peach].
 Souvenir de Pierre Notting,
 The Bride, white. [apricot-yellow].
 White Maman Cochet, creamy-
 white.

HYBRID PERPETUALS.

Captain Hayward, carmine-crimson.
 Frau Karl Druschki, white.
 Général Jacqueminot, scarlet-
 Mrs. John Laing, pink. [crimson].
 Ulrich Brunner, crimson.

POMPON.

Mrs. W. H. Cutbush, pale-pink.
 White Pet.

5.—FOR GENERAL PURPOSES.**Roses for Town Gardens.****HYBRID TEAS.**

Caroline Testout, rose.
 Dr. O'Donel Brown, carmine-rose.
 Gustave Grunnerwald, carmine
 and yellow.
 J. B. Clark, scarlet-crimson.
 La Tosca, blush-white.
 Madame Abel Chatenay, carmine-
 rose.
 Madame Ravary, orange-yellow.
 Marjorie, salmon-pink.
 Prince de Bulgarie, flesh and
 salmon.

HYBRID PERPETUALS.

Frau Karl Druschki, white.
 Général Jacqueminot, crimson.

HYBRID PERPETUALS—continued.

Hugh Dickson, crimson.
 Madame Victor Verdier, red.
 Mrs. John Laing, pink.
 Ulrich Brunner, red.

BOURBON.

Mrs. Paul, white and peach.

CHINA.

Laurette Messimy, rose and yellow.

RAMBLERS.

Conrad F. Meyer, pink.
 Gloire de Dijon, buff.
 Longworth Rambler, crimson.

Fragrant Roses.

HYBRID TEAS.

Admiral Dewey, blush.
 Aladdin.
 Andre Gamon, carmine-rose.
 Archie Grey, cherry-red.
 Ards Rambler, rosy-carmine.
 Augustine Guinoisseau, white
 Avoca, crimson. [and blush.
 Bessie Brown, creamy-white.
 Betty, coppery-rose and yellow.
 British Queen, creamy-white.
 C. E. Shea, rose-pink.
 Charles J. Grahame, crimson.
 Chateau de Clos Vougot, crimson
 and scarlet.
 Cherry Ripe, crimson.
 Cheshunt Hybrid, cherry-cerise.
 Claudius, rose.
 Countess Annesley, rose-salmon
 and old gold.
 Countess of Caledon, rose-carmine.
 Comtesse Melanie de Pourtales,
 creamy-white and red.
 Crimson Emblem, crimson-scarlet,
 Colcestria, rose and pink.
 Danmark, pink.
 Dorothy Page Roberts, coppery-
 pink.
 D. O'Donel Browne, carmine-rose.
 Dr. G. Kruger, crimson.
 Duchess of Albany, pink.
 Duchess of Wellington, saffron-
 yellow and orange.
 Duchess of Westminster, rose-
 Earl of Gosford, crimson. [madder.
 Edgar M. Part Burnett, flesh
 and rose.
 Edith Part, red, salmon, and yellow.
 Effective.
 Elizabeth Barnes, salmon-pink.
 Ferniehurst, rose, copper, pink,
 and fawn.
 Florence H. Vietch, scarlet-crimson.
 Florence Spaul, rose-pink.
 Francis Chatteris Seaton, rose-pink.
 General McArthur, crimson.
 Gladys Harkness, salmon-pink.
 Golden Emblem, golden-yellow.
 Gruss an Teplitz, crimson.
 Helvetia, rose and red.
 Hilda Richardson, rose, lilac, and
 white.

HYBRID TEAS—continued.

H. E. Richardson, crimson.
 Isabel, carmine, copper, and yellow.
 John Ruskin, rosy-carmine.
 Joseph Hill, salmon-pink and yellow
 Killarney, flesh. white, and pink.
 King of Siam, red.
 Lady Alice Stanley, coral-pink
 and flesh.
 Lady Barham, coral-pink.
 Lady Dunleath, ivory-cream,
 white and orange.
 Lady Helen Vincent, pink and
 yellow
 Lady Margaret Boscawen, shell-
 Lady Ursula, flesh-pink. [pink.
 Lord Kitchener, orange, salmon,
 and old rose.
 Mabel Drew, cream and yellow.
 Madame Abel Chatenay, salmon-
 pink.
 Madame Jules Grolez, silvery-rose.
 Madame Paul Rouchan, canary-
 yellow,
 Madame Rodolphe Armand, pink,
 yellow, and red.
 Miss Stewart Clark, golden-yellow.
 Modesty, cream and rose.
 Mrs. Arthur E. Coxhead, red
 and vermilion.
 Mrs. Arthur Munt, cream and buff.
 Mrs. Bryce Allen, rose-pink.
 Mrs. Charles Curtis Harrison,
 crimson and pink.
 Mrs. Charles Curtis Harrison,
 crimson and pink.
 Mrs. Charles Reed, cream, peach,
 and yellow.
 Mrs. David Baillie, madder-carmine
 Mrs. David Jardine, peach-pink.
 Mrs. Dunlop Best, reddish-apricot.
 Mrs. E. G. Hill, coral-red and white.
 Mrs. Foster, rich vermilion.
 Mrs. George Preston, silvery-rose.
 Mrs. Harold Brocklebank, creamy-
 white and buff.
 Mrs. James Craig, salmon-rose
 and yellow.
 Mrs. Joseph H. Welch, rose-pink.
 Mrs. Leonard Petrie, sulphur-yellow
 Mrs. Maynard Sinton, silvery-
 white and pink.

Fragrant Roses—continued.**HYBRID TEAS—continued.**

- Mrs. Muir Mackean, carmine-crimson.
 Mrs. Peter Blair, lemon and golden-yellow.
 Mrs. Sam Ross, straw-yellow.
 Miss Stewart Clark, cerise-pink.
 Mrs. W. J. Grant, rosy-pink.
 Mrs. Wemys Quin, lemon and madder-orange.
 Mrs. Walter Easlea, crimson-carmine.
 Mrs. William Cooper, rosy-flesh.
 Mrs. Wilfred Lloyd, rose-pink.
 Nellie Parker, creamy-white.
 Oracenta, shell-pink.
 Paul Bere, apricot and rose.
 Prince de Bulgarie, rose and apricot.
 Richmond, red-scarlet.
 Rosette de la Legion d'Honneur, red and yellow.
 Souvenir de Marie Zayas, carmine.
 Tipperary, golden-yellow.
 Viscount Carlow, carmine-pink and cream.
 Viscountess Folkestone, creamy-white and flesh.
 W. F. Bennett, crimson.
 White Killarney, white.

TEAS.

- Alexander Hill Gray, lemon-yellow.
 Alice de Rothschild, citron-yellow.
 Anna Olivier, cream and buff.
 Belle Lyonnaise, canary-yellow.
 Billiard et Barre, orange-yellow.
 Bouquet d'Or, buff-yellow.
 Duchesse D'Auerstadt, yellow.
 E. Veryat Hermanos, apricot and carmine.
 Gabrielle Thierrard, carmine, rose, and chamois.
 Goubalt, rosy-buff and fawn.
 Gustave Nabonnand, flesh and rose.
 Madame Berard, fawn, yellow, and copper.
 Madame Hoste, lemon-yellow.
 Marie Van Houtte, lemon-yellow and rose.
 Mme. Cusin, violet, rose, and yellow.
 Mrs. B. R. Cant, rose and buff.
 Mrs. Edward Mawley, pink and carmine.

TEAS—continued.

- Mrs. Foley Hobbs, ivory-white and pink.
 Tea Rambler, coppery-salmon and pink.

HYBRID PERPETUALS.

- Alfred K. Williams, crimson.
 American Beauty, rose.
 Camille Bernardin, crimson.
 Charles Darwin, crimson.
 Charles Lefebvre, crimson.
 Commandant Felix Faure, lake and crimson.
 Comte de Raimbaud, crimson.
 Dr. Andry, crimson.
 Duchess of Bedford, crimson and scarlet.
 Duke of Edinburgh, scarlet-crimson.
 Duke of Connaught, crimson.
 Duke of Wellington, crimson.
 Dupuy Jamain, cerise.
 Etienne Levet, carmine-red.
 Genl. Jacqueminot, scarlet-crimson.
 George Arends, rose.
 Gustave Piganeau, carmine-lake.
 Horace Vernet, scarlet-crimson.
 Hugh Dickson, crimson and scarlet.
 John Hopper, rose.
 Lady Helen Stewart, crimson-scarlet.
 Louis Van Houtte, red and crimson.
 Madame Victor Verdier, crimson.
 Marie Baumann, red.
 Mrs. George Dickson, satiny-pink.
 Oscar Cordel, carmine.
 Prince Arthur, crimson.
 Prince Camille de Rohan, crimson.
 Senateur Vaisse, crimson.
 Ulrich Brunner, red.
 Ulsier, salmon.
 Victor Hugo, crimson-scarlet.
 Xavier Olibo, crimson.
MOSS.
 Blanche Moreau, white.
 Zenobia, satin-pink.
MUSKS.
 Princesse de Nassau, creamy-white.
 Moschata, white.
RUGOSA.
 Conrad F. Meyer, silvery-rose.
 Rose a Parfum de l'Hay, red.



AUSTRIAN HYBRID ROSE, "MADAME EDOUARD HERRIOT."

A semi-double rose with glossy green foliage suitable for beds.

Colour, terra-cotta to strawberry rose.



HYBRID WICHURAIANA ROSE, "EMILY GRAY."

A rich yellow-flowered climbing rose, suitable for pillars or arches. Awarded Gold Medal, N.R.S., 1916.

Fragrant Roses—continued.**AUSTRIAN HYBRID.**

Gottfried Keller, apricot-yellow.
 Juliet, old gold, rose and yellow.
 Lyon Rose, coral-red, pink and
 yellow.
 Soleil d'Or, orange and crimson.

BOURBON.

Madame Isaac Periere, carmine.
 Souvenir de la Malmaison, blush-
 ..white.
 Zephyrine Drouhin, carmine-pink.

DAMASK.

Mrs. O. G. Orpen, rosy-pink.
 Old Damask, red.
 York and Lancaster, rose, white
 striped.

SINGLE-FLOWERED.

Irish Beauty, white.
 Irish Glory, silvery-pink.

POLYANTHA OR POMPON.

Ænchen Muller, pink.
 Anna Maria de Montravel, white.
 Ellen Polson, pink.
 Lady Violet Henderson, yellow
 and white.

MULTIFLORA OR RAMBLER.

Tausendschon, pink, rose, and
 carmine.
 White Tausendschon, white.

NOISETTE.

Cloth of Gold, yellow.
 Deprez a fleur Jaunes, red, buff,
 and sulphur.
 Fellenberg, rosy-crimson.
 Golden Queen, yellow.
 Lamarque, white and lemon.
 Madame Alfred Carriere, white.
 Marechal Niel, yellow.
 Solfatarre, sulphur-yellow.

CHINA.

Mrs. Bosanquet, flesh-white.

PROVENCE.

Belle des Jardins, purple, striped
 Cabbage Rose, rosy-pink. [white.
 Rosa Mundi, red, striped white.
 Village Maid, white, rose, and purple.
 White Provence, white.
 York and Lancaster, white,
 striped red.

WICHURAIANA.

Evangeline, white and pink.
 Evergreen Gem, buff and white.
 Gerbe Rose, pink.
 Hurst Rambler, creamy-yellow.
 Leontine Gervaise, salmon, rose,
 and yellow.
 Paul Transon, pink and white.
 Rene Andre, saffron, yellow,
 and orange-red.
 Sonningdean, lemon-white,
 Star of Hurst, white.

Roses for Pegging Down.**HYBRID TEAS.**

Climbing Lady Ashtown, pink.
 Climbing Mrs. Grant, rosy-pink.
 Gruss an Teplitz, crimson.
 Gustave Regis, yellow.
 J. B. Clark, crimson.
 La France, pink.
 Lady Waterlow, salmon and carmine
 Mrs. Stewart Clark, cerise-pink.

TEAS.

Gloire de Dijon, buff.
 Marie Van Houtte, white and yellow
 Madame Lambard, salmon-pink.
 Madame Berard, salmon-rose.

TEAS—continued.

Madame Jules Gravereaux, flesh
 and yellow.
 Papilion, pink and white.

HYBRID PERPETUALS.

Baron de Bonstettin, crimson.
 Camille Bernardin, red.
 Captain Hayward, carmin-crimson.
 Charles Lefebvre, red and maroon.
 Duke of Edinburgh, vermilion.
 Frau Karl Druschki, white.
 Gloire de Margottin, red.
 Hugh Dickson, crimson.
 Madame Gabriel Luizet, pink.

Roses for Pegging Down—continued.**HYBRID PERPETUALS—continued.**

Margaret Dickson, blush-white.
 Mrs. John Laing, pink.
 Prince Camille de Rohan, maroon.
 Thomas Mills, crimson.
 Violet Bowyer, white and flesh.

HYBRID AUSTRIAN BRIAR.

Juliet, rose and old gold.

BOURBONS.

Madame Isaac Pereire, carmine.
 Mrs. Paul, blush white.

NOISETTES.

Madame Caroline Kuster, yellow.
 W. Allen Richardson, orange-yellow

Twenty-four Roses for Standards.**HYBRID TEAS.**

Caroline Testout, pink.
 Gruss an Teplitz, crimson.
 Joseph Hill, coppery-yellow and
 salmon.
 Lady Ashtown, deep pink.
 La Tosca, blush-white.
 Madame Abel Chatenay, salmon-
 Madame Ravary, yellow. [pink.
 Prince de Bulgarie, rose and apricot.

TEAS.

Anna Olivier, rosy-flesh and buff.
 Homeré, pale rose.
 Lady Roberts, apricot and yellow.
 Madame Antoine Mari, rose, white,
 and blush.
 Madame Constant Soupert, yellow
 and peach.

TEAS—continued.

Madame Jean Dupuy, yellow and
 rose.
 Mrs. Foley Hobbs, ivory-white.
 White Maman Cochet, white and
 lemon.

HYBRID PERPETUALS.

Captain Hayward, scarlet.
 Frau Karl Druschki, white.
 Général Jacqueminot, red.
 Hugh Dickson, crimson.
 Mrs. John Laing, pink.
 Madame Victor Verdier, crimson.
 Mrs. R. G. Sharman Crawford,
 rosy-pink.
 Suzanne Marie Rodocanachi, rose.

Seventeen Roses for Weeping Standards.

Alberic Barbier, creamy-white
 and yellow.
 Bennett's Seedling, white.
 Blush Rambler, white and blush.
 Debutante, pink.
 Dorothy Perkins, pink.
 Evangeline, white and pink, single.
 Excelsa, scarlet.
 Félicité-et-Perpétue, white.
 Hiawatha, crimson and white, single

Jersey Beauty, yellow, single.
 Madame d'Arblay, flesh and white.
 Paul's Carmine Pillar, carmine-
 scarlet, single.
 Paul Transon, salmon-pink.
 Queen of the Belgians, creamy-
 white.
 Rugosa repens alba, white.
 Tausendschon, rose-pink, semi-
 Tea Rambler, pink. [double.

Dwarf Roses for Edging.

Ennchen Muller, deep pink.
 Cecile Brunner, blush.
 Frau Cecile Walter, yellow to
 creamy-white.

Georges Pernet, rosy-peach and
 yellow.
 Madame E. A. Nolte, chamois-
 Mrs. Taft, rosy-crimson. [yellow.

Roses for Trailing over Banks.

- | | |
|--|-------------------------------------|
| Alberic Barbier, creamy-white
and yellow. | Jersey Beauty, yellow. |
| Dorothy Perkins, pink. | Lady Gay, cherry-pink. |
| Eliza Robicon, pale yellow. | Milky Way, white. |
| Ethel, flesh-pink. | René André, saffron-yellow and red. |
| | Ruby Queen, carmine and white. |

Roses for Hedges.**HYBRID SWEET BRIARS.**

- Anne of Gierstein, crimson.
Blanc Double de Coubert, pure
Edith Bellenden, rose. [white.
Gloire des Rosamanos, crimson.
Gruss an Teplitz, dark crimson.
Hebe's Lip, white and purple.

HYBRID SWEET BRIARS—contd.

- Janet's Pride, crimson-lake.
Lady Penzance, copper.
Meg Merrilies, crimson.
Nova Zembla, white.
Rugosa, red.
Zephirine Drouhin, carmine-pink.

Fifty Roses for Garden Decoration.**HYBRID TEAS.**

- Caroline Testout, warm pink.
Dorothy Page Roberts, coppery-pink
General McArthur, scarlet-crimson.
Gustav Grunnerwald, carmine-pink
and yellow.
Lady Ashtown, deep pink.
Lady Pirrie, coppery-salmon.
La Tosca, blush-white.
Madame Ravary, yellow. [pink.
Madame Abel Chatenay, salmon-
Madame Jules Grolez, silvery-rose.
Madame Melanie Soupert, yellow
and amethyst.
Richmond, crimson.

HYBRID PERPETUALS—continued.

- Mrs. John Laing, pink.
Prince Camille de Rohan, dark
crimson.
Ulrich Brunner, cherry-red.

CHINAS.

- Crimson China, crimson.
Ducher, white.
Laurette Messimy, satiny-rose.
Madame Eugene Resel, satin-rose.
Mrs. Bosanquet, pale rose.
Queen Mab, rosy-apricot.

BOURBONS.

- Armosa, pink.
Madame Isaac Pereire, carmine.
Madame Plantier, pure white.
Mrs. Paul, blush and peach.

TEAS.

- Alexander Hill Gray, lemon-yellow.
Alice de Rothschild, citron-yellow.
Anna Olivier, rosy-flesh and buff.
Coraline, coral-red.
Dr. Grill, rose and copper.
Gloire de Dijon, buff.
Harry Kirk, sulphur-yellow.
Homère, light rose.
Hon. Edith Gifford, white and flesh.
Lady Hillingdon, yellow.
Lady Roberts, apricot and yellow.
Madame Pierre Cochet, orange-
yellow.

SINGLE-FLOWERED ROSES.

- Irish Beauty, pure white.
Irish Brightness, crimson. [scarlet.
Irish Elegance, bronzy-orange and
Irish Fireflame, madder-orange and
crimson.
Irish Harmony, saffron-yellow,
claret and white.
Irish Modesty, coral-pink.
Irish Pride, blush rose.
Irish Star, bright carmine.
Maharaja, dark crimson.
Muriel Jamison, deep orange.

HYBRID PERPETUALS.

- Charles Lefebvre, velvety-crimson.
Frau Karl Druschki, white.
Hugh Dickson, crimson-scarlet.

6.—FOR EXHIBITION.

Twenty-four Hybrid Teas for Exhibition.

- Avoca, crimson.
 Bessie Brown, creamy-white.
 Caroline Testout, pink.
 Dean Hole, rose.
 Dr. O'Donel Browne, carmine-rose.
 Edward Mawley, rich crimson.
 Florence Pemberton, creamy-white
 and blush.
 J. B. Clark, crimson and plum.
 Kaiserin Augusta Victoria, cream
 and lemon.
 Lady Alice Stanley, pink and rose.
 Lady Ashtown, deep pink.
 Leslie Holland, bright crimson.
 Madame Melanie Soupert, yellow
 and amethyst.
 Marquise Litta, carmine.
 Mildred Grant, ivory-white and
 peach.
 Mrs. A. E. Coxhead, claret-red.
 Mrs. Amy Hammond, cream and
 amber.
 Mrs. E. J. Holland, deep pink.
 Mrs. J. H. Welch, rose-pink.
 Mrs. Maynard Sinton, silvery-white
 and pink.
 Mrs. Richard Draper, pink and flesh.
 Mrs. Theodore Roosevelt, flesh and
 pink.
 Mrs. W. J. Grant, rosy-pink.
 William Shean, creamy-pink.

Twenty-four Teas for Exhibition.

- Anna Olivier, buff.
 Bridesmaid, pink.
 Catherine Mermet, rosy-flesh.
 Comtesse de Nadaillac, peach,
 apricot, and copper.
 Hon. Edith Gifford, flesh.
 Lady Roberts, apricot and copper.
 Maman Cochet, flesh and rose.
 Madame Constant Soupert, yellow
 and peach.
 Madame Jules Gravereaux, flesh
 and yellow.
 Marie Van Houtte, lemon-yellow
 and rose.
 Mme. Cusin, violet, rose, and yellow.
 Mme. deWatteville, cream and rose.
 Mrs. Edward Mawley, pink and
 carmine.
 Mrs. Foley Hobbs, ivory-white.
 Mrs. Myles Kennedy, creamy-white.
 Molly Sharman Crawford, white
 and eau-de-nil.
 Muriel Grahame, cream and rose.
 Rubens, white and rose.
 Souvenir de Pierre Notting, apricot
 and orange.
 Souvenir de S. A. Prince, white.
 Souvenir d'un Ami, rose.
 White Maman Cochet. [lemon.
 White Maman Cochet, white and
 W. R. Smith, white and blush.

Twenty-four Hybrid Perpetuals for Exhibition.

- Abel Carrière, crimson-maroon.
 Alfred Colomb, carmine-red.
 A. K. Williams, carmine-red.
 Baroness Rothschild, pink.
 Ben Cant, crimson.
 Captain Hayward, scarlet-crimson.
 Etienne Levet, carmine-rose.
 Fisher Holmes, crimson-scarlet.
 Frau Karl Druschki, white.
 Génl. Jacqueminot, scarlet-crimson.
 Gloire de Chedane-Guinoisseau,
 crimson.
 Gustave Piganeau, carmine.
 Her Majesty, rose.
 Horace Vernet, scarlet-crimson.
 Hugh Dickson, crimson-scarlet.
 Louis Van Houtte, crimson-maroon.
 Madame Gabriel Luizet, silvery-
 pink.
 Madame Victor Verdier, light
 crimson.
 Marie Baumann, carmine-red.
 Mrs. Cocker, pink.
 Mrs. John Laing, rosy-pink.
 Mrs. R. G. Sharman Crawford,
 rosy-pink.
 Senateur Vaisse, crimson,
 Ulrich Brunner, cherry-red.

7.—GOLD MEDAL ROSES.

The following varieties have been awarded the Gold Medal of the National Rose Society :—

Hybrid Teas.

- Alice Lindsell, creamy-white.
 Annie Crawford, rosy-pink.
 Annie Crawford, silvery-pink.
 Augustus Hartmann, carmine-red
 and orange.
 Augustus Hartmann, red, orange,
 and cerise.
 Avoca, crimson.
 Bessie Brown, creamy-white.
 Betty, coppery-rose and yellow.
 Brilliant, scarlet-crimson.
 British Queen, creamy-white.
 C. E. Shea, silvery-rose pink.
 Claudius, rose.
 Colleen, rose-pink.
 Countess Clanwilliam, pink and red.
 Countess of Gosford, salmon-pink,
 rose, and yellow.
 Countess of Shaftesbury, carmine
 and pink.
 Cynthia Forde, rose-pink.
 Dean Hole, silvery-rose.
 Dorothy Page Roberts, coppery-pink
 Duchess of Portland, sulphur-yellow
 Edgar M. Burnett, flesh-pink.
 Edward Bohane, crimson-scarlet.
 Edward Mawley, dark-crimson.
 Ethel Malcolm, ivory-white.
 Florence Forester, white and lemon.
 Florence Pemberton, creamy-white
 and blush.
 G. Amedee Hammond, yellow and
 sulphur.
 George Dickson, crimson.
 Golden Emblem, golden-yellow.
 Golden Spray, golden-yellow.
 H. E. Richardson, carmine.
 His Majesty, carmine-crimson.
 H. V. Machin, scarlet-crimson.
 Iona Herdman, deep yellow.
 Irish Elegance, apricot.
 Isabel, carmine and coppery-yellow.
 J. B. Clark, scarlet-crimson and
 plum.
 John Ruskin, rosy-crimson.
 King George V., crimson.
 Lady Alice Stanley, coral-pink
 and flesh.
- HYBRID TEAS—*continued.*
- Lady Helen Vincent, pink and
 yellow.
 Lady Mary Ward, orange.
 Lady Pirrie, coppery-salmon.
 Leslie Holland, scarlet-crimson.
 Mabel Drew, cream and yellow.
 Majestic, carmine-rose.
 Mildred Grant, ivory-white and
 peach.
 Modesty, cream and rose.
 Moonlight, white and lemon.
 Mrs. Andrew Carnegie, creamy-
 white.
 Mrs. Amy Hammond, cream and
 amber.
 Mrs. Archie Gray, creamy-yellow.
 Mrs. Bryce Allen, rose-pink.
 Mrs. C. E. Pearson, orange, apricot,
 and fawn.
 Mrs. Cornwallis West, white and
 pink.
 Mrs. David McKee, creamy-yellow.
 Mrs. Edward J. Holland, salmon.
 Mrs. Forde, rose-pink and yellow.
 Mrs. James Lynas, pearly-pink
 and peach.
 Mrs. Joseph H. Welch, rose-pink.
 Mrs. Maynard Sinton, silvery-white
 and blush.
 Mrs. Peter Blair, lemon-yellow.
 Mrs. Richard Draper, pink and flesh
 Mrs. R. D. Maclure, salmon-pink.
 Mrs. Sam Ross, straw yellow.
 Mrs. Stewart Clark, cerise-pink.
 Mrs. W. J. Grant, rosy-pink.
 Nellie Parker, creamy-white.
 Old Gold, old gold and scarlet.
 Paul's Lemon Pillar, creamy-yellow.
 Princess Mary, crimson, single.
 Queen of the Belgians, salmon-pink.
 Queen of Spain, pale flesh.
 Queen Mary, yellow and rose-
 carmine.
 Red Letter Day, crimson-scarlet.
 Simplicity, white.
 Tipperary, golden-yellow.
 Ulster Volunteer, crimson-scarlet.

Teas.

- | | |
|---|--|
| Alexander Hill Gray, lemon-yellow. | Mrs. Hubert Taylor, blush-pink
and white. |
| Harry Kirk, sulphur-yellow. | Mrs. Myles Kennedy, creamy-white. |
| Lady Hillingdon, apricot-yellow. | Muriel Grahame, cream. |
| Lady Plymouth, ivory-cream. | Nita Weldon, white and blush. |
| Lady Roberts, reddish-apricot. | Perle des Jardins, canary-yellow. |
| Mrs. B. R. Cant, rose and buff. | Souvenir de Pierre Notting, apricot-
yellow and orange. |
| Mrs. Campbell Hall, creamy-buff
and carmine. | Souvenir de S. A. Pince, white. |
| Mrs. Edward Mawley, pink and | Titania, coppery-salmon, red and
yellow. |
| Mrs. Foley Hobbs, ivory-white
and pink. | White Maman Cochet, white. |
| Mrs. Herbert Stevens, white and
pink. | |

Hybrid Perpetuals.

- | | |
|---|---|
| Ben Cant, crimson. | Margaret Dickson, ivory-white and
blush. |
| Coronation, flesh-pink. | Mrs. Cocker, soft pink. |
| Helen Keller, rosy-cerise. | Mrs. John Laing, rosy-pink. |
| Her Majesty, satin-rose. | Mrs. R. G. Sharman Crawford,
rose, pink, flesh, and white. |
| Hugh Dickson, crimson-scarlet. | Paula Clegg, red. |
| Marchioness of Downshire, pink
and rose. | Salamander, scarlet-crimson. |
| Marchioness of Dufferin, rosy-pink. | Sir Rowland Hill, port wine. |
| Marchioness of Londonderry,
ivory-white. | |

Miscellaneous Roses.

· HYBRID TEA.
Paul's Scarlet Climber.

MULTIFLORA.
Blush Rambler, blush.
Queen Alexandra, rose.
Turner's Crimson Rambler, crimson.

BOURBON.
Mrs. Paul, blush-white.
Purity, white.

AUSTRIAN HYBRIDS.

- Gorgeous, flesh, orange, apricot,
and yellow.
Madame Edouard Herriot, coral-
red and yellow.
Mrs. Arthur R. Waddell, salmon
and yellow.
Muriel Dickson, vermilion-carmine.

HOW TO PLANT ROSES.

Preparation of the Soil.—Ordinary soils—*i.e.*, those that are fairly rich, and do not retain too much moisture in winter—simply require to be dug three spits deep—equal to at least 30 inches—and have thick layers (2 or 3 inches) of decayed manure mixed between the second and third spits. Light soils also require to be dug deeply, and to have pig or cow dung—not horse manure—placed in layers beneath the second and third spits. If possible, some heavy loam or clay should be incorporated with the light soil. Heavy clay soils should, if very wet, be drained to a depth of 3 feet, and afterwards trenched to a depth of 3 feet, working in abundance of road grit, leaf mould, burnt earth and fresh horse manure. Where single plants only are to be planted, a space of not less than 4 feet square should be prepared as above advised. Fig. 1 explains how to deepen the soil. First of all, a trench 3 feet wide should be taken out at one side of the bed or border, and the soil should be wheeled to the opposite side, or where the digging or trenching is to be finished. This is necessary, in order that the soil shall be convenient for filling in the last trench. Take the soil out down to the subsoil C. This is of a different colour and texture. This subsoil must not be brought to the surface, but simply broken up deeply and left in the bottom of the trench, as shown at D. Now take the top spit and place it on C. Then take the next spit and place it on the top of B, as shown at A. Continue thus throughout the piece to be planted. If the soil be very poor, and it is necessary to use manure or other good soil, this will be placed between A and B. If manure be used, it must be covered deep enough to be out of the way of the roots of the newly-planted roses. This deep working of the soil should be done some weeks in advance of planting, in order to allow it to settle.

When to Plant.—Where possible, plant at the end of October, or during November. Never plant in December or

January if it can be avoided. February, March, and the early part of April are good months for spring planting.

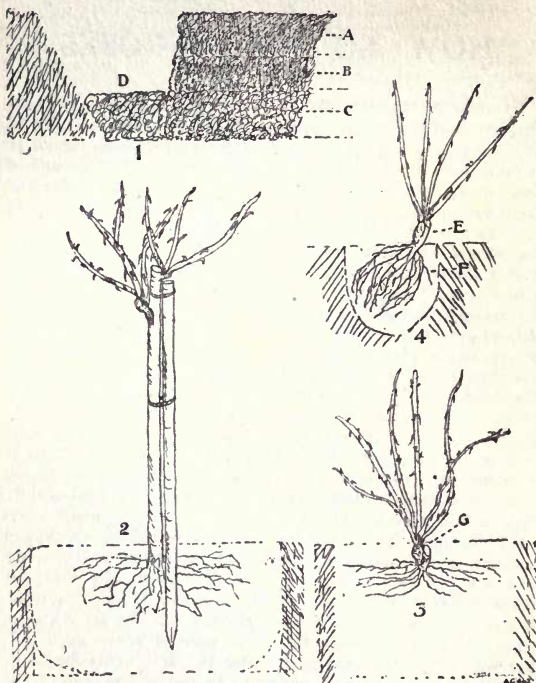


FIG. I.—PREPARING THE SOIL AND PLANTING ROSES.

REFERENCES.—Fig. 1, Trenching the Soil; Fig. 2, Properly planted standard rose; Fig. 3, Properly planted bush rose, (G), Graft; Fig. 4, Improperly planted rose with graft (E) above the surface.

Distance Apart and Depth for Planting.—

Dwarf roses should be planted 18 inches apart, standards 3 feet, and climbers from 3 to 4 feet apart. As to depth, plant



TEA-SCENTED ROSE, "LADY HILLINGDON."

An excellent rose for bedding or pot culture. Colour, golden-yellow and fawn. A first-rate buttonhole rose.

standards in holes 6 inches deep; dwarfs and climbers sufficiently deep to allow the junction of stock and scion to be buried about an inch below the surface. In other words, the part of the stem where the plant was budded or grafted must be buried in the soil to the depth of an inch. In the case of "own-root" roses, plant in holes 6 inches deep.

Mode of Planting.—Dig out holes 15 to 18 inches square, and to the depth above stated. Spread the roots out evenly in every direction to their full length. On no account twist the roots round because the diameter of the hole will not permit them to be spread out at full length; rather make

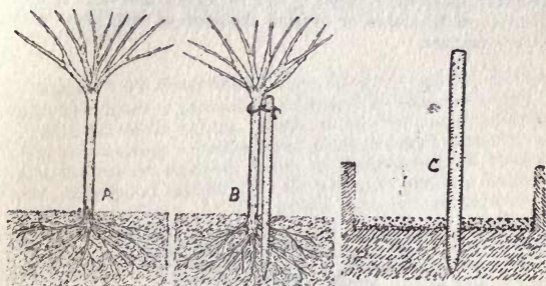


FIG. 2.—HOW TO STAKE A ROSE TREE.

A. An unstaked tree. B. Tree staked after planting, the wrong way. C. The correct way, the stake being first fixed in the hole before the tree is planted.

the hole wider to accommodate the roots. Cover the roots with fine soil free from manure. Work it well between them, by giving the plant a gentle shake, so that they do not touch each other. Give a gentle tread with the foot, then add more soil, finally filling up the hole and afterwards making the soil absolutely firm. If planting be done in spring, prune the plants before doing so. (See 2, 3, and 4, Fig. 1.)

General Remarks.—When the plants arrive from the nursery unpack them at once, and if the roots are in the slightest degree dry soak them for an hour or so in water before planting. Take care also to cut off the jagged ends of wounded roots. Should the weather be frosty or very wet at

the time the plants arrive, do not unpack them, but place the package in a cool place until planting can be performed. In the case of standards, place a stout stake to each plant before the roots are covered with soil, and secure the stem firmly to it. This is best accomplished by placing a strip of leather or sacking, or a piece of old garden hose pipe, round the stem, and then securing the latter to the stake by means of a ligature of tar twine or copper wire placed over the bandage. The ligature then will not injure the bark of the stem. Dwarf roses require no staking. Climbing roses should not be securely fastened until each plant has had time for its roots to settle down. All that remains to be done is to properly label each variety, and to mulch the surface to a distance of 18 inches or so from the stem of each plant with littery manure.



HOW TO PRUNE ROSES.

IN the schedule at the end of this work, and elsewhere, a brief reference is made to the pruning of the various types and varieties of roses in cultivation. The information, however, is not sufficiently full to aid the beginner in rose culture to thoroughly grasp the importance of the different degrees of pruning, and so we shall devote a special chapter to the subject.

Object of Pruning.—First of all we will briefly deal with the object or general principles of pruning. The object is of a threefold nature. First of all, we prune with the idea of obtaining a good-shaped plant or tree; secondly, we aim thereby at ensuring plenty of finely-developed blooms; and, thirdly, at maintaining the plant or tree in a healthy, vigorous condition by the skilful removal of superfluous growths, or dead or diseased wood. There are some types of roses, as the Boursault, Evergreen, Ayrshire, and Rugosa, for instance, that, if left unpruned, would suffer no grievous harm. On the contrary, there are others, as the Tea, Hybrid Tea, and Hybrid Perpetual, which, if unpruned, or not skilfully pruned, would fail to flower or to grow satisfactorily. Hence in the schedule we have indicated by the terms "hard," "medium," and "little" the amount of pruning required by each variety. But we must go farther than is conveyed by that brief indication, and point out that two main principles have to be observed in pruning. We have, for example, to consider whether certain kinds are to be grown for yielding a few good blooms for exhibition, or a quantity for cutting or for garden decoration. This, then, will be our aim in the following pages.

Time to Prune.—The proper time to prune roses grown against walls or fences, and which consequently are liable to start into growth early, is early in March. Pro-

vence, Moss, Evergreen, Boursault, Ayrshire, and Rugosa roses may be pruned from the end of February to the middle of March, according to the season. Hybrid China, Hybrid Sweet Briars, and Alba roses prune early in March. Austrian Briars, Hybrid Bourbon, Noisette, and Musk; Bourbon, China, Noisette, Polyantha, Pompon, Scotch, Wichuraiana, and Hybrid Perpetual sorts prune from the middle to the end of March. Hybrid Teas, Teas, and Banksian are better pruned the end of March or early in April, according to the season. These are general rules for the guidance of

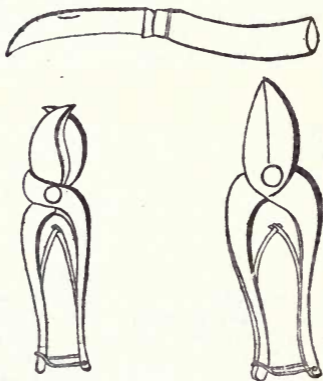


FIG. 1.—USEFUL PRUNING TOOLS.

A good type of pruning knife, also of secateurs. The left-hand one is called the "Parrot-bill," and the other the "Puffin-bill" secateur.

the beginner. As he gains experience and becomes well acquainted with the climate and soil of his locality, and the state of growth of each variety, he can then exercise his discretion as to whether he should prune a week earlier or later. The successful rosarian does not work by rote, but by experience and study of the special needs of each variety. A last word on this topic. Do not be led to prune early because new growth is commencing at the points of the shoots. These are the safety valves of the plants. The sap in the ends of the shoots is in a more or

less watery condition, and is easily excited into action by the warmth of the early sunshine. The ripe or mature sap is situate at the base of the shoots, and is not so susceptible to action by heat. Consequently it usually remains dormant till the end of March or April, and with it the buds upon which the rosarian has to rely for the production of strong shoots. It is, therefore, the buds on the lower half of the shoots only that the rosarian has to consider, and, so long as these remain dormant, no heed may be taken of precocious growths at the top, which will at the time of pruning have to be cut away.

Special Points in Pruning.—Rosarians are divided in opinion as to whether a knife or a pair of secateurs (Figs.

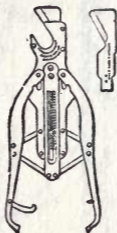


FIG. 2.—BARROW'S PATENT PRUNER.

A strong and useful tool for pruning. Cuts with a knife-like action, and does not bruise the shoots.

1 and 2) should be used for pruning. Provided a good pair of the latter be available, they are much safer and handier to use than a knife. A bad or a worn-out pair would, however, do more harm than good; they would bruise the shoot and render it susceptible to disease or canker. A good knife, however, is indispensable, as there may be occasions when the secateurs cannot be used. Armed with good tools, the next special point to consider is the proper way to use them. In severing a shoot always cut it off close to a bud and in a slightly slanting condition behind it, not half an inch or more behind, and in a tapering form. These long "snags" eventually die, since there are no leaves above to draw sap into their cells, and the result is decay of the tissue and disease. Dead wood, too, should always be cut

clean away to healthy tissue, so that new cells and corky tissue can form over the edges of the wound, and afford no rendezvous for spores of fungoid disease. All weak or superfluous growths should for a similar reason be cut clean away to the main stem. If, after pruning, moisture (sap) should be seen issuing from the wounds, paint the surface at once with "painter's knotting" to seal the wounded cells. Loss of sap means the weakening of future growth. (See examples of right and wrong ways of pruning, Fig. 3.)

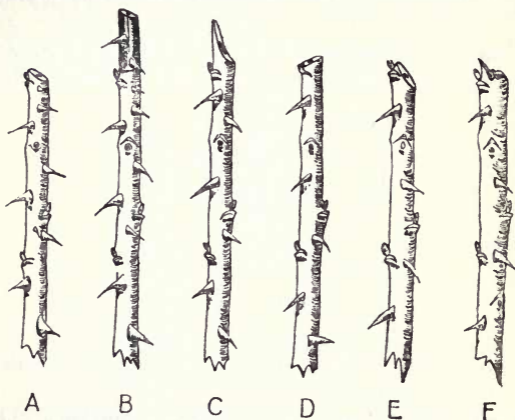


FIG. 3.—RIGHT AND WRONG WAYS OF PRUNING.

A. Correct way. B. Pruned too far beyond bud, leaving a "snag." C. Cut too long. D. Cut the wrong side of bud. E. Cut too low. F. Bruised or jagged end—a bad error.

Methods of Pruning.—These vary according to the type, and vigour of the varieties in each section. The recognised methods which are in general use by the majority of rosarians are four, and these are known respectively as "Hard," "Moderaté," "Light," "Little," and "Very Little." The particular method for any particular variety or type is described in the classified schedule at the end of this volume. Therefore, to ascertain the correct system of pruning for any variety the reader has only to refer to the

sections to find the information wanted. This may appear to the inexperienced as a troublesome business to have to prune each variety in a special way, and so it is, but experience has clearly demonstrated that if we wish to get healthy good-shaped plants and fine flowers we must be prepared to go to the extra trouble to secure our ideal. In a general way one might prune all dwarf and standard rose trees

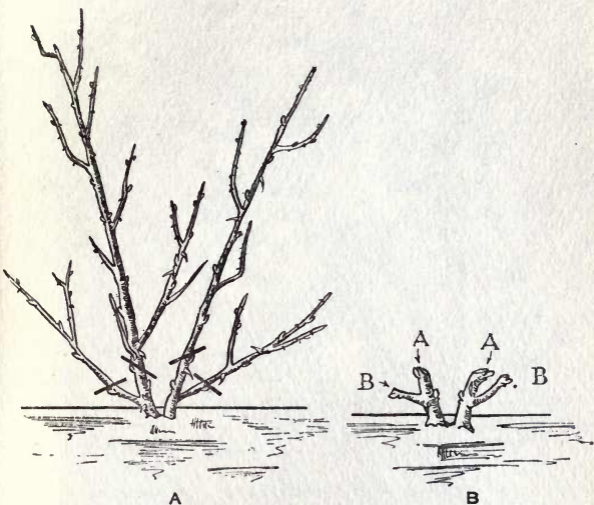


FIG. 4.—EXAMPLE OF "HARD PRUNING" A DWARF ROSE.

A. Tree before pruning. Bars indicate where to prune. B. Tree after pruning. A.A. Main shoots pruned to one or two "eyes," laterals (B) to one "eye."

moderately, and all climbers very slightly, in each case removing weakly and sickly growth, and get good results. It is, however, best in the long run to take extra pains to prune each variety according to its special requirements. We will therefore describe each system of pruning in detail.

"Hard" Pruning.—This system applies to exhibition and decorative Hybrid Perpetuals, Hybrid Teas, and

Noisettes that are not of robust growth. It consists of thinning out all weak wood, retaining the strong, healthy shoots only, which should be cut back to two, three, or four "eyes" from their base. In the case of a tree grown for decorative purposes only the thinning out of shoots need not be so severe, as quantity rather than quality of bloom is the chief desideratum. Another point, too, in the latter

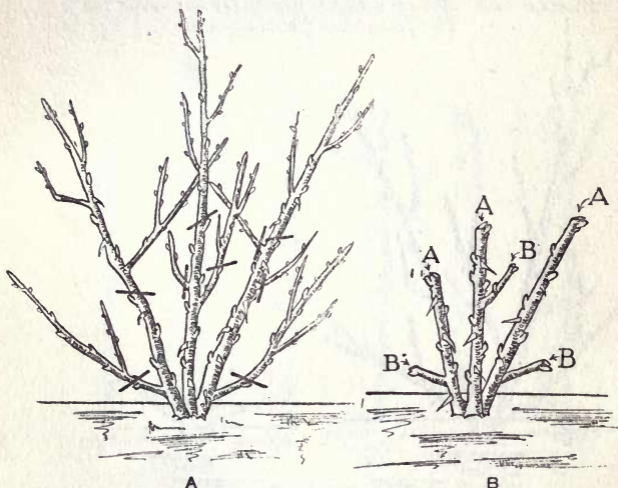


FIG. 5.—EXAMPLE OF "MODERATE PRUNING" DWARFS.

A. Tree before pruning. Bars indicate where to prune. B. Tree after pruning. A.A. Main shoots pruned to four or six "eyes." B.B. Laterals pruned to one or two "eyes."

case is to endeavour to get as large and as good-shaped a plant as is possible in the course of a year or so. (See Fig. 4.)

"Moderate" Pruning.—Here a less severe system of pruning is practised on certain exhibition and decorative varieties of Hybrid Perpetuals, Hybrid Teas, Noisettes, and Teas of a moderate habit of growth. Thus, for securing exhibition blooms, thin out all weak, sickly, and unripe



A POT-GROWN STANDARD ROSE, "LADY GODIVA."

A Wichuraiana rose which thrives exceedingly well as a pot plant. Suitable for forcing or growing in a cold greenhouse. Colour, pale bluish.

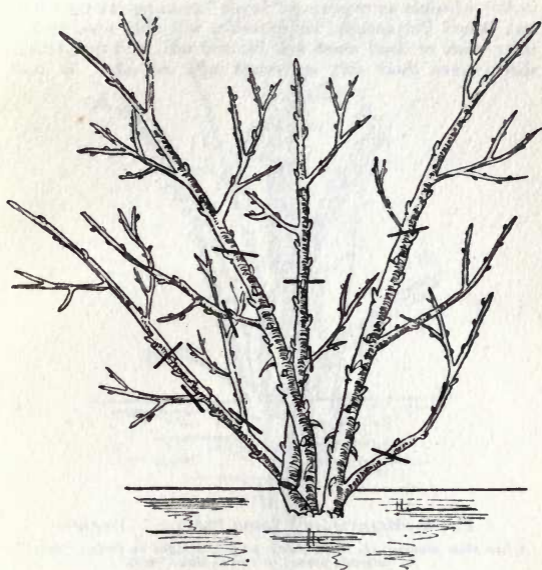


DWARF POLYANTHA ROSE," "MADAME N. LEVAVASSEUR."

A good rose for pot culture or massing in beds. A continuous bloomer.

Colour, crimson. Also known as "Baby Rambler."

growths, leaving the strongest and best-ripened shoots, which prune to four or five "eyes." For decorative purposes pursue a similar course as regards weak and unripe shoots, and shorten the remainder to six or eight "eyes." In all cases see the centre of each plant is kept open. (See Fig. 5.)



A

FIG. 6.—EXAMPLE OF "LIGHT PRUNING" DWARFS.

Tree before pruning. Bars indicate where to prune.

"Light" Pruning.—This method of pruning is usually practised on varieties of robust growth. Exhibition varieties require all weak, dead, or unripe shoots to be removed, retaining the strong, well-ripened growths, which shorten to eight "eyes." Any lateral shoots forming on older wood

G

prune to two or three "eyes." For decorative purposes prune away weak or unripened growths, shorten strong, well-ripened shoots to eight or twelve "eyes," and laterals growing on old wood to three or four "eyes." (See Fig. 6.)

"Little" Pruning.—In this case any varieties described in the schedule as requiring "Little" pruning, as the Chinas and Dwarf Polyanthas, for example, will only need to have their weak or dead wood well thinned out, and the stronger shoots have their soft unripened tips cut off. It really

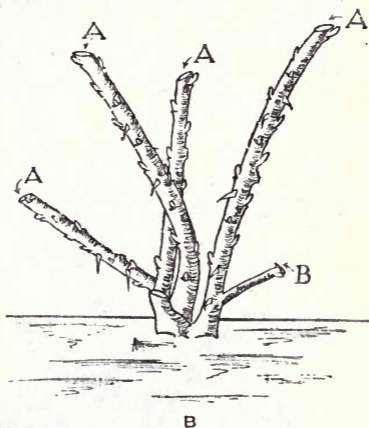


FIG. 6.—EXAMPLE OF "LIGHT PRUNING" DWARFS.

Tree after pruning. A. Main shoots pruned to eight or twelve "eyes."
B. Laterals pruned to two or three "eyes."

means that, except for the removal of weakly growths which would later on overcrowd the bush and form a rendezvous for pests, the plants should be left pretty much to grow as they please.

"Very Little" Pruning.—Here all the pruning required is to remove shoots that have flowered from Rambler and Wichuraiana roses in early autumn, to thin out dead or weakly shoots in March, and just cut off the soft un-

ripened tips of the strong shoots. Banksian roses only require to have dead wood removed, all other shoots, including laterals, being trained to the wall. (See Fig. 7.)

Pruning Standards.—Newly-planted standard trees

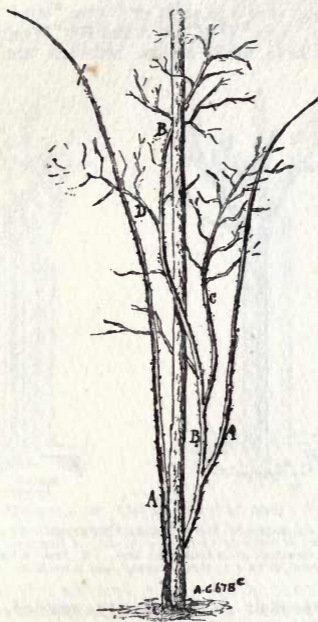


FIG. 7.—EXAMPLE OF "LITTLE PRUNING" RAMBLER ROSES.

A. A. Shoots of the previous year's growth which only need to have unripened tips removed in March. B.C.D. Older growths which should be pruned away after flowering, or in March if not done before.

should be pruned hard the first year; that is to say, the previous year's main shoots should be cut back to three or four "eyes," and any strong lateral to one "eye," very weak ones

being cut clean away (see Fig. 8, A and B). In subsequent years, according to the variety, as indicated in classified list at the end of this volume, "moderate" or "light" pruning should be practised. Thus "moderate" pruning (Fig. 9, A and B) means shortening the vigorous shoots to four or six "eyes," and laterals to one "eye," and "light" pruning, cutting the strong shoots to eight or twelve "eyes," and laterals to one or two "eyes" (Fig. 10, A and B). Weeping standards only need to have weak shoots removed entirely, strong

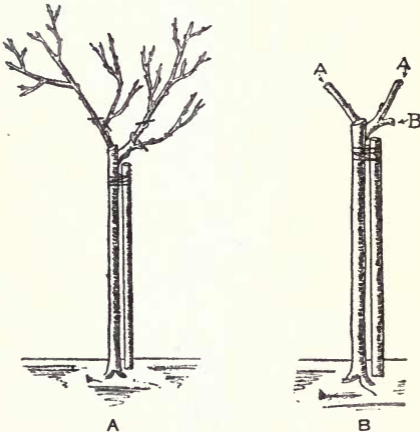


FIG. 8.—EXAMPLE OF "HARD PRUNING" STANDARDS.

A. Tree before pruning as indicated by bars. B. Tree after main shoots are shortened to two or three "eyes," and laterals to one "eye."

growths have their unripened tips removed, and laterals shortened to four or six "eyes."

Special Note on Pruning Climbers.—When climbers are grown against walls it frequently happens, after a few years, that the plant becomes bare to the base, all its new growth taking place at the top. This should be guarded against by careful pruning and training each spring. Thus the first year of planting prune the strongest shoots

to 18ins., the medium ones to 12ins., and the smaller to 6ins. The second spring unfasten the shoots from the wall, and if the central ones have made very strong growths, spread these out horizontally, or nearly so, each way, and secure them thus to the wall. This will check the upward flow of sap to the strong shoots, and cause new shoots to develop near the base. Train these up the centre. The next spring, prune the strong shoots that were trained horizontally back close to the base of the strongest of the young growths

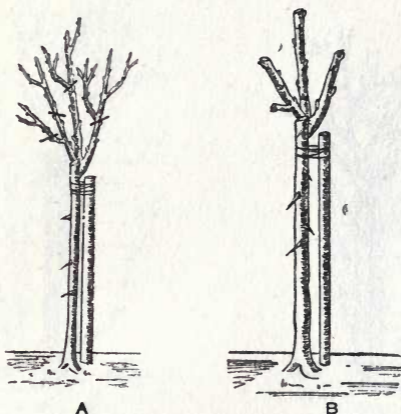


FIG. 9.—EXAMPLE OF "MODERATE PRUNING" STANDARDS.

A. Tree before pruning. Bars indicate where to prune. B. Tree with main shoots shortened to four or six "eyes," laterals to one "eye."

that formed the previous year. Again train these shoots obliquely or horizontally, rather than vertically, and so get more young shoots to develop, which again train up the centre. Proceed thus year after year, and then the rose will always be well furnished at its base with healthy growth carrying an abundance of flowers.

Climbers on arches, pillars, or pergolas also require special pruning to keep them properly furnished at the base with healthy foliage. To do this shorten the weaker growths

two-thirds, the medium ones one-third, and the strong ones merely cut off their tips. Thus those pruned severely will produce plenty of lateral growth at the base; those pruned moderately will furnish the centre; and the stronger ones the top with both foliage and flowers.

In each case laterals will, of course, form on the older wood, and these should be shortened to three, six, or more "eyes" according to their strength, to yield a profusion of flowers in summer. (See Figs. 7, 11, 12, 13, and 14.)

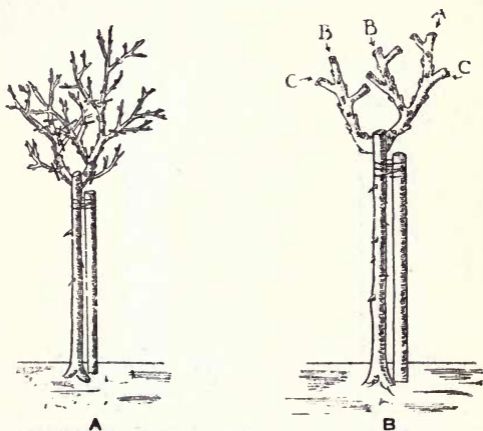


FIG. 10.—EXAMPLE OF "LIGHT PRUNING" STANDARDS.

A. Tree before pruning. Bars indicate where to prune. B. Tree after pruning. Main shoots (A.B.) shortened to eight or twelve "eyes"; laterals (C.) to one or two "eyes." All weak wood removed.

Pruning Newly-planted Roses.—No matter what class of rose be grown, the strict rule should be followed of cutting the shoots well back the first season. Thus all dwarf roses should be cut back in spring to two or three eyes, standards the same, and climbers to one or two feet from the base. The object of doing this is to encourage the plant to make strong growth the first season. If not pruned thus hard, the resultant growth will be weak and puny and the

flowers poor. Better by far to sacrifice the loss of a few flowers the first year, and get a strong plant that will yield good results in future.

Pruning Pegged-down Roses.—For this purpose cut away all weak growths in spring and retain all strong



FIG. 11.

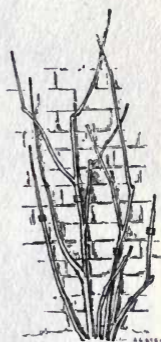


FIG. 12.

A LESSON IN PRUNING DWARF CLIMBING ROSES.

REFERENCES.—Fig. 11 represents a tree of Climbing Pride of Waltham before pruning, and Fig. 12 the same tree after pruning. The tree had never been properly pruned before, consequently, a good deal of old and weak wood had to be cut out, leaving vigorous young shoots, which were shortened to the first dormant bud.

ones. Merely cut off their unripened tips, and then peg them down. In the following spring cut away the shoots that have flowered, and retain the young ones as before.

Disbudding.—This is a form of pruning practised by some to ensure vigorous young growths. It consists of rubbing off with finger and thumb any young weakly growths in

an early stage of their formation, in order that the whole efforts of the plant may be concentrated on the development of three to four strong shoots only. It is usually done in May.

Summer Pruning.—This is a matter which has received considerable attention of late years by rose growers. It has been proved by experience that many kinds of climb-

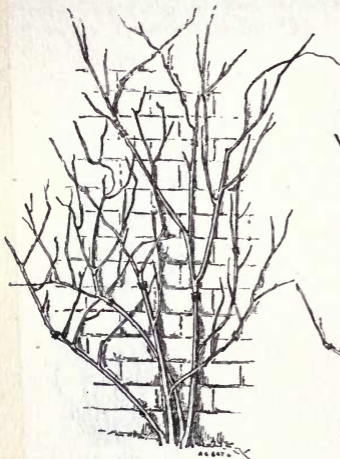


FIG. 13.



FIG. 14.

PRUNING CLIMBING ROSES.

REFERENCES.—Fig. 13 shows a W. A. Richardson rose before pruning. Observe it is much overcrowded with weak growths. Fig. 14 shows the same rose after pruning away the weak growths and shortening the stronger ones to the first dormant bud. The same rule applies to all roses advised to be little pruned.

ing roses are greatly benefitted by thinning out their shoots in summer instead of in spring, as was formerly the custom. Varieties like the Boursault, Evergreen, Ayrshire, Climbing Polyantha, Crimson Rambler, and, in fact, all vigorous climbers, should have those shoots which have flowered cut out to make room for the current year's growth to develop and ripen. This prevents the plants being overcrowded with



WICHURAIANA ROSE, "DELIGHT."

A late-flowering single rose. Colour, carmine with white and yellow centre. A climbing variety.

a mass of weak, flowerless shoots, keeps them better supplied with healthy, vigorous growth, and ensures a greater abundance of blossom annually. This thinning out should be done when the plants have ceased blooming, from July onwards. No further pruning is then needed beyond removing dead wood and the unripened tips of the shoots in spring. In the case



FIG. 15.

FIG. 16.

SUMMER PRUNING ROSES.

REFERENCES.— A, Fig. 15 is a lateral or side shoot which has flowered and must be cut away at the short line. E, Fig. 15 is a current year's shoot which must not be pruned. B, Fig. 16 is a main shoot that has flowered and requires to be treated as A, Fig. 15. C and D, Fig. 16, are current year's main shoots which must be left to flower next season.

of the Banksian rose, merely cut away the rank shoots of the current year's growth, leaving the plump, moderate size ones only. The older shoots, unless sickly, must not be cut away as these will yield flowers the next season. (See Figs. 15 and 16.)

MANURES FOR ROSES.

Every rose-grower, whether large or small, is keenly interested in the subject of manures for feeding rose trees. Some, unfortunately, become too keenly interested therein for the welfare of the plants. They get a mistaken idea into their heads that the rose is a gross-feeding plant, and that the soil in which it is to grow cannot be made too rich. We grant that a rose tree in good health requires a generous diet, but the ingredients of that diet must be supplied with a certain amount of caution and judgment, otherwise more harm than good will be the inevitable result.

The Philosophy of Manuring.—In the first place, the intelligent rosarian should appreciate the patent fact that a plethora of animal manure or fertilisers mixed with the soil before planting has a tendency to make the soil sour, and this, coming in contact with the ordinary roots, is apt to cause decay or disease of their tissues, and hence, instead of promoting healthy, vigorous growth, it has the opposite effect, namely, general ill-health and the ultimate death of the plant. In the second case, no plant, and least of all a rose, can, until it has been established some months, derive any benefit whatever from additional fertilisers applied to the soil. The existing roots must first use the reserve food stored in their tissues, and in those of the stems and shoots, form new cellular tissue to ultimately develop into fine hair-like roots, which alone have the power of absorbing food in liquid form from the soil before a rose tree can derive any benefit from any manure or fertiliser added to the soil. In other words, the tree must produce a mass of new fibrous roots from the older ones before it can absorb moisture from the soil. Until then the tree exists upon the reserve food stored in its tissues. And, thirdly, by supplying lavish applications of food, it is just as possible to do as much injury to a rose tree as it is to overfeed a man, or a child, with an excess of food which it cannot properly digest. It will thus be seen that, while food may be beneficial to a rose tree, yet, at the

same time, such food must be applied with judgment and caution.

The reader will, we trust, see from the foregoing remarks, that the primary consideration to be borne in mind in manuring the soil for successful rose growing, and for maintaining the trees in good health afterwards, is first of all to induce them to make plenty of new fibrous roots and root hairs before manures or fertilisers are freely supplied. To that end, he must, therefore, not make the soil too rich, so that it may remain in a sweet condition until the new roots are sufficiently plentiful to absorb additional food. It may be accepted as a golden rule that no additional food is required in the soil for the first year after planting.

Essential Manures or Fertilisers.—We now come to the question of what manures or fertilisers are essential for rose growing. It is a commonly accepted fact that three main elements of plant food are indispensable for all crops, and these are nitrogen, phosphates, and potash. Other elements which combine with the foregoing to form a complete plant food are oxygen, hydrogen, carbon, sulphur, chlorine, soda, calcium, magnesia, and iron, but these exist in sufficient quantity in a natural state in the air, water, or soil, and therefore do not require to be taken into consideration.

To provide phosphates (phosphoric acid) we have at our disposal horse, cow, sheep, pig, or poultry dung, bone-ash, superphosphate, bone-meal, basic slag, guano, dissolved bones, and fish guano; potash—kainit, sulphate of potash, nitrate of potash, wood ashes, stable and poultry manure; nitrogen—stable and poultry dung, nitrate of ammonia, nitrate of soda, nitrate of lime, nitrate of potash, sulphate of ammonia, soot, nitrolim, blood, dried blood, and hoof and horn parings. Liquid manure, such as urine from the stable or cow byre, or drainings from a manure heap, is also rich in potash and nitrogen, and of the greatest possible value as a fertiliser for roses.

Animal Manures.—These embrace the excreta of the horse, cow, pig, sheep, and the pigeon or fowl.

Horse manure is rich in nitrogen phosphates and potash, especially if the liquid urine has been thrown over it from time to time during decomposition. It is specially adapted for heavy or medium soils, as it serves the useful purpose of

lightening the texture, increasing the porosity, supplying the needful humus for promoting the development of nitrifying bacteria, darkening the colour of the soil, and enabling it to absorb the heat of the sun, and thereby render it warmer, as well as supplying the three chief plant foods. Best used in a decomposed state, mixing it freely with the soil in the course of trenching at the rate of 2cwt. to every square rod. May also be used as a mulch or topdressing in autumn, forking it in after pruning.

Cow and pig manures are also rich in potash, phosphates, and nitrogen. Being more solid and plastic in composition, also of a colder nature than horse dung, they are specially suited for light or sandy soils, as they bind the soil particles together, retain the moisture in summer, keep the soil cool, and also supply it with humus. Neither are adapted for heavy soils, as they would render them too cold, damp, and plastic or cohesive. A combination of horse, cow, and pig dung, known as farmyard manure, would be suitable for medium soils. Use at the same rate and in the same way as advised for horse dung.

Peat-moss-litter manure is a very rich manure in a fresh state, because it absorbs the urine of animals as well as contains the solid fæces. It is of a retentive nature, and hence is best adapted for light, dry, or sandy soils. Should be dug into the soil in a fresh state; if allowed to decompose it loses its nitrogen quickly. Not suitable for mulching purposes. Quantity to use: 2cwt. per square rod.

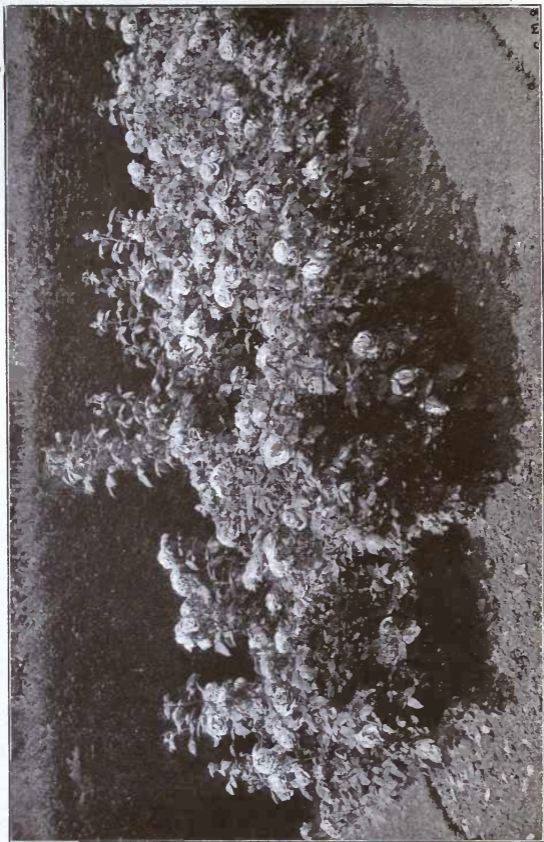
Sheep dung is another very rich manure, but, being difficult to obtain in quantity, is best utilised in a liquid form. See paragraph on Liquid Manures.

Poultry and pigeon dung is equal in fertilising value to guano. Its chief manurial constituents are nitrogen, phosphates, potash, magnesia, and lime. It is rather too rich to dig into the soil before planting, and hence should be used as a topdressing. The droppings, as collected, should be stored in layers six inches deep, with a layer of fine, dry soil between in tubs or boxes in a shed. The soil will then absorb the moisture, and convert the droppings into a powdery condition. In this state pass the mixture through a quarter-inch mesh sieve, and then apply at the rate of 4oz. per square yard at intervals of a month in spring and summer, lightly raking or forking it into the soil. May also be used in liquid form, as per instructions given further on.



A SCREEN OF PILLAR ROSES.

Such varieties as Ards Rambler, Guss an Tepnitz, Tauschendschon, Paul's Carmine Pillar, etc., make an effective screen when well established.



A BED OF "MRS. JOHN LAING" ROSE.

A Hybrid Perpetual Rose of vigorous growth. A popular variety for growing in beds or pots, also as a standard.
Colour, rosy-pink. Very fragrant.

Artificial Manures.—These are more or less direct plant foods—i.e., they have no mechanical effect upon the improvement of the texture of the soils; their sole business is to supply the roots with additional phosphates, potash, or nitrogen, and in that way add to the fertility of the soil. No one must expect to grow roses successfully by the aid of artificial manures alone. The soil must have its texture put in a healthy and proper mechanical state of efficiency before artificials can be of real service to the plants. That is to say, in preparing the soil animal manures must be fully used to lighten heavy or render light soils more compact and moisture-retaining, as well as provide them with humus. Artificials, such as we are about to describe, can then be applied with advantage.

Basic slag is a phosphatic fertiliser, containing 30 to 40 per cent. of lime. It is adapted for heavy soils only, especially those that are deficient in lime. Apply before planting, also a topdressing each autumn afterwards, at the rate of 4oz. per square yard. It promotes sturdy growth.

Bone-meal (finely-ground bones) is another phosphatic and nitrogenous manure suitable for light or ordinary soils. It is a lasting fertiliser. Apply at the time of preparing the soil, also each autumn afterwards at the rate of 4oz. per square yard.

Bones (Dissolved).—These are suitable for top-dressing rose beds where the soil is of a chalky or marly nature. They contain nitrogen and phosphates. Use 2oz. per square yard.

Blood in a fresh state contains a large amount of nitrogen, and small quantities of potash and phosphates. It should, however, never be applied in a fresh state to roses or other crops, as, during its decomposition, it would render the soil sour, and injure the roots. It should be treated as follows: To every gallon of fresh blood add 1lb. of fresh lime, and mix thoroughly, then place in a shallow box, and cover with a thin layer of lime, successive layers being added until the box is filled. Leave thus until the mixture becomes quite dry, then apply at the rate of 4oz. per square yard, and fork in. Dried blood, as sold by manure dealers, is blood treated by a special process; it contains nitrogen, mainly with small quantities of lime, magnesia, phosphates, and iron, and is a good fertiliser for occasional top-dressings in spring and summer. Apply 2oz. per square yard, and fork it in.

Guano is a splendid all-round fertiliser for roses during the

growing season. It is fairly rapid in action, and roses soon benefit by a weekly or fortnightly application of 1oz. per square yard. Apply in showery weather, or water it in. Fish guano is also a good fertiliser. Of this apply 2oz. per square yard once a fortnight in spring and summer.

Kainit is the cheapest form of potash, and may be applied to all soils, except clay, when preparing the soil, and as an annual top-dressing in both cases at the rate of 1oz. per square yard.

Lime is useful as a corrective of sourness in the soil, and is good also for helping to improve the texture of heavy soils. When preparing the soil apply 4oz. of ground lime per square yard. Gypsum (sulphate of lime) may be used instead at the rate of 2oz. per square yard. Both have the effect of sweetening old or heavily-manured garden soils, making clay soils less cohesive and plastic, and liberating latent potash therein.

Nitrate of soda is a purely nitrogenous fertiliser suitable for light soils. It promotes healthy leaf growth, and may be applied at the rate of 1oz. per square yard, and watered in, or in a liquid form at 1oz. per gallon of water. Use once a week during the summer.

Nitrate of lime is a comparatively new fertiliser, supplying nitrogen and a small proportion of lime to the soil. An excellent fertiliser for roses, because it promotes a sturdy growth. Apply at the rate of 1oz. per square yard once a fortnight in summer only.

Nitrolim is another modern nitrogenous fertiliser, which also contains lime. Good for heavy soils as the nitrogen is given up slowly, and the lime sweetens the soil and liberates latent potash. Apply 1oz. per square yard once a fortnight in summer.

Nitrate of potash supplies both nitrogen and potash to the soil, but is too expensive a manure to use on a large scale. Best applied in liquid form at the rate of 1oz. to three gallons of water once a month during the summer.

Sulphate of ammonia is a purely nitrogenous fertiliser suitable for heavy soils only. It promotes leaf-growth, and increases the size and brilliancy of the colour of the flowers. Use at the rate of 1oz. per square yard at intervals of a fortnight in May, June, and July; or as a liquid ($\frac{1}{2}$ oz. to a gallon of water).

Sulphate of potash is the best potash manure for roses. Apply 2oz. per square yard when preparing the soil, and at the same rate each autumn. Only required on light, medium, or sandy soils. Heavy soils contain an ample supply of potash.

Sulphate of iron is recommended by some chemists as a good fertiliser for roses. Roses with pale foliage may be given a solution occasionally of a quarter-ounce to a gallon of water.

Superphosphate of lime is composed of mineral or other phosphates ground into a very fine powder, and then treated with sulphuric acid. It is, therefore, a phosphatic fertiliser, and suitable for light, loamy, sandy, or chalky soils. Apply before planting, and again each autumn at the rate of 2oz. per square yard.

Wood ashes are rich in potash and phosphates, and suitable for application to soils before planting or for top-dressing in autumn. May be used in any quantity.

Liquid Manures.—These are invaluable for applying to roses during the growing season. They should be applied preferably in showery weather, or, failing that, after the soil has been thoroughly moistened with water. Evening is the best time to apply manure water, as then there is no risk of loss of nitrogen by evaporation.

An excellent liquid manure may be prepared by placing a peck of horse, cow, or pig dung, and a similar quantity of soot in a 36-gallon cask of water. The manure and soot is best enclosed in a coarse sack. After three days' immersion dilute the liquor with half water and apply to the rose trees. When the cask is empty refill with water, and three days later use the liquor undiluted. Poultry manure and soot, half a peck of each, may be used in the same way. Another good liquid manure for out or indoor roses may be prepared as follows: Add $\frac{1}{2}$ oz. of superphosphate, 1oz. of sulphate of iron, and 1oz. of sulphate of ammonia to every two gallons of water. Yet another good liquid fertiliser, especially for pot roses, is a composition of two parts Peruvian guano, four parts of dissolved bones, one part of sulphate of ammonia, and one part of nitrate of potash. Apply 1oz. of above mixture to two gallons of water once a week during the flowering season.

Special Manures.—We now give various formulæ recommended by various experts:

- 1.—Three parts of bone-meal, one part of hoof and horn, one part of sulphate of potash. Mix together, and apply 2oz. per square yard in autumn.
- 2.—Two parts of sulphate of ammonia, four parts of dissolved bones, one part of sulphate of magnesia. Mix together, and apply 2oz. per square yard in May, hoeing or forking it in.
- 3.—Superphosphate of lime, 12lbs.; sulphate of potash, 10lbs.; sulphate of magnesia, 2lbs.; sulphate of iron, 1lb.; gypsum (sulphate of lime), 8lbs. Mix thoroughly, and crush up fine, then apply 4ozs. per square yard directly after pruning. One application per annum will suffice, no other fertilisers being required. This is known as Tonks' formula.





HYBRID TEA ROSE, 'MRS. BRYCE ALLEN.'

A good exhibition or garden rose. Colour rose-pink. Awarded Gold Medal,
N.R.S., 1916.



A BED OF W. ALLEN RICHARDSON ROSES.

This climbing Noisette rose makes an effective display when its shoots are pegged down to the surface of beds.

HOW TO EXHIBIT ROSES.

THE writer of this book does not, of course, profess to teach the expert or veteran grower the art of growing roses for exhibition, nor how to exhibit the flowers to the best advantage in order to secure coveted prizes. It is written mainly with the view of assisting the beginner in rose growing with useful advice to guide him in his maiden efforts to win prizes. Once the amateur has got on the right track, won a prize or two, and by hobnobbing with fellow rosarians, comparing and making notes of how they stage their cherished flowers, it is surprising how quickly he will grasp the secret of successful exhibiting, and in his turn also becomes an expert.

A FEW IMPORTANT WRINKLES.

The main secret of successfully exhibiting roses lies in

(A) Selecting the finest and most perfect flowered varieties that are known to occupy premier positions in winning collections.

(B) Securing good trees, more especially those known as "Maidens" (one-year-olds).

(C) Planting them in properly-prepared soil, and in the most favourable positions.

(D) Pruning each variety more or less hard according to its constitution, aiming at few flowers rather than quantity, and these of the finest quality.

(E) Carefully disbudding the weak shoots in an early stage of their development, also the buds in their incipient stages of growth. (See Figs. 1 and 2.)

(F) Careful and judicious feeding of the plants to assist in attaining substance of petal, size of flower, and richness of colour.

(G) Shading the developing blooms from scorching sunshine or excessive rainfall.

(H) Carefully placing a ligature of worsted around the bloom two days or so before it is required to be staged, and doing this very early in the morning or late in the evening.

(I) Bending the shoot carrying the bloom down slightly and securing it to a stake so that it points downwards, and is not consequently liable to injury by moisture settling within the petals.

(J) Cutting the blooms late the previous evening before, or very early in the morning of the day of the show.



FIG. 1.—DISBUDDED ROSE SHOOT.

Showing small buds on shoot, Fig. 2, removed, leaving central one only on each shoot

(K) Storing the blooms in a cool dark place till you are ready to start to the show.

(L) Packing the blooms securely in the exhibition box, and seeing that the latter is kept level during its journey.

(M) Exercising great care that you have the blooms named correctly—a most important point.

(N) Seeing that the blooms are so arranged as to harmonise or form a pleasing contrast with each other on the stand.

(O) Also, that each bloom is a perfect example of its kind, and free from blemished petals.

(P) Being careful to see that when finally arranged, and within a few minutes of the judging, the wool ligatures are removed, and a fine spray of water applied over the blooms.

(Q) That you have not only entered, but also placed your exhibit in the right class.

(R) That you have conformed entirely to the conditions of the schedule in every respect.

(S) That you have particularly left no point undone that you ought to have done.



FIG. 2.—UNDISBUDDED ROSE SHOOT.

If exhibition or fine blooms are desired, the small flower buds should be removed early. See Fig. 1.

(T) That the name cards have been placed in their proper positions.

(U) That the lid of the box has been removed at the last moment.

(V) That you immediately leave the tent when requested to do so by the officials.

(W) That you do not attempt to re-enter the tent until the judging is finished.

(X) Nor boast to your rivals outside that you are bound to get a "first," or indeed any prize.

(Y) Nor abuse the judges because, with their impartial eye, judgment, and experience, they have failed to appraise the value of your exhibit at the same standard as yourself.

(Z) Nor, above all things, lose your temper, but take your beating in a calm, generous, and dignified spirit.

Here you have the whole alphabet of wrinkles which will carry you triumphantly on the road to success if you consistently follow them.

METHODS OF EXHIBITING ROSES.

In Boxes.—The old-fashioned idea of exhibiting cut blooms of roses was in boxes, containing six, twelve, eighteen, twenty-four, thirty-six, forty-eight, and so on. The same practice still obtains in the case of exhibition blooms of H.P.'s, H.T.'s, and Teas. The regulation size of boxes as stipulated by the National Rose Society are as follows: "All blooms exhibited (except where specially directed in the schedule to be shown in vases or otherwise) must be staged in boxes of the regulation size, viz., 4in. high in front and 18in. wide, and of the following lengths (all outside measurements): For 24 blooms, 3ft. 6in. long; for 18 blooms, 2ft. 9in. long; for 12 blooms, 2ft. long; for 9 blooms, 1ft. 6in. long; for 6 blooms, 1ft. long; for 8 trebles, 3ft. 6in. long; for 6 trebles, 2ft. 9in. long; for 4 trebles, 2ft. long." Each box has, of course, to be fitted with sliding hinges to enable it to be easily removed on arrival at the show. The lid, moreover, ought to be 9in. deep, and have a narrow slit at each end covered with perforated zinc to admit air. Such boxes may be purchased ready made from dealers in garden sundries. Tubes will also be necessary to fit in the holes to hold water in which to place the blooms. One of the best tubes for the purpose is that known as Foster's. Some nice fresh moss is also necessary to cover the surface of the box and impart a cool, neat, and refreshing groundwork to the blooms. Such dense-growing moss may be collected on any moist hedge bank.

In Vases.—Exhibition roses are now shown in tall glazed earthenware vases. The blooms in this case have to be cut with long stems, the classes varying from six to twelve and twenty-four blooms in each. It is a much more pleasing and artistic way of exhibiting exhibition roses than in formal boxes. Decorative roses are also staged in a similar fashion.

In Bunches.—Ordinary mixed garden roses, including ramblers, are often shown in bunches large enough to hold comfortably in one hand. These bunches, of course, have to be staged in vases.

In Bamboo Stands.—Classes are provided at the N.R.S. and other shows for a collection of five or more distinct varieties, each to occupy one stand. Each stand contains five tubes or receptacles, and the flowers have to be lightly arranged in these.

In Baskets.—This method of exhibiting roses is mainly confined to classes set apart for ladies. The baskets are usually made of wicker-work, and in various fancy styles. They are used to demonstrate the decorative value of roses, and when tastefully and effectively filled with blooms, they generally form an attractive feature of the show. Sometimes the size and shape of basket to be used is defined in the schedule, in which case care must be taken to conform strictly to the printed conditions, otherwise the exhibit may be disqualified. If the schedule specifies that only rose foliage must be used with the flowers, no addition of fern fronds, asparagus foliage, smilax trails, grass inflorescence, or gypsophila flowers must be made. If, on the other hand, there is no such stipulation to the contrary, then any of the latter materials may be used, in conjunction with or without the natural rose foliage. The use of ribbons is not usually favoured by judges; anyway, it is the general practice to ignore these when judging the exhibit. Lightness and gracefulness of arrangement, as well as a soft pleasing tone of colour, count strongly in favour of an exhibit. The blooms require to be cut with long stems, to be supported unobtrusively with fairly stiff wires, and to have their ends fixed firmly in moist sand or moss. The blooms, too, should not be too fully developed, but shown in the bud and half-open state.

In Bowls.—Cut roses are also exhibited in bowls, the size of the latter being restricted to a height of 6 to 8 in., and a width of 7 to 11 in. Decorative roses are invariably staged thus. A little moist sand placed in the bowl will enable the flowers to be more gracefully adjusted.

Dinner Table Decoration.—For this purpose a bowl, epergne, or a vase is generally used for the centre,

and smaller vases, averaging four to six, or more, placed around. What is known as rustic flower stands are also used. Generally, the exhibitor has to provide a table cloth 6 by 4ft., to which the vases must be confined. Silk and other table centres are usually tabooed. Graceful arrangement of the flowers and harmony of colour must be studiously observed to ensure winning a prize. In some classes only rose foliage is permissible for mixing with the flowers; so, in order to avoid disqualification, the conditions of the schedule should be carefully followed. Avoid overcrowding by the use of too many vases or stands.

Bouquets. — Prizes are offered in some societies for ordinary and shower bouquets of roses. The general rule nowadays is to exclude ribbons as a part of the make-up of the bouquet, so care should be taken to follow the wording of the schedule. Be careful not to allow wires or other supports to display themselves too prominently, nor to insert loose pieces of foliage among the flowers.

Ladies' Sprays.—These should be arranged in a light and graceful manner, not too heavy or clumsy-looking, and the blooms should be of a pleasing shade of colour.

Buttonholes.—As a rule a buttonhole rose should be arranged with its own foliage, unless there is a condition to the contrary in the schedule. One good neat bud is better than three, but if the latter be small, then use three for each buttonhole. Both sprays and buttonholes should be staged on a kind of easel covered with black velvet. If the easels can be provided with tubes to hold water so much the better.

GENERAL HINTS.

As briefly pointed out in the par, devoted to "Wrinkles," it is most important that the exhibitor should carefully and strictly conform to the conditions published in the schedule, both as to dimensions of boxes, size of vases, bowls, and stands, the question of whether ribbon is allowed or not for baskets, bouquets, etc., also whether any other foliage than that of the rose is permissible. Beginners often get disqualified through a lack of oversight of these important conditions.

In arranging blooms in boxes, arrange the largest flowers at the back, the medium-sized ones in the centre, and the smaller ones in front. Never put two dark roses together; separate them by a light one. Yellow roses usually show to the best advantage in the centre or middle row, and here, too, it is a good plan to place some of the most perfectly shaped blooms, provided they are smaller than those in the back row. To attract the eye of the judge you must not only have them ideally perfect blooms of each variety, but also have them so arranged that they form a pleasing contrast or harmony.

Another point of great importance is the question of how far "dressing" the blooms should be practised. Really only an expert eye that thoroughly understands the natural contour or habit of each variety should attempt this to any extent. If by opening out the petals of a variety which is naturally compact in contour you change its natural contour, you will lose points because the judge will pass the bloom as not being true to character. You may, of course, remove defective outer petals, and slightly ease the remainder to give the bloom a better shape, but no more.

Yet another point: never stage too fully-developed blooms. If you do the heat of the box when travelling, and the subsequent warmth of the tent or room will cause the centre to open and show its eye. One such bloom will spoil the whole stand. Better be content with a good medium-sized, perfectly fresh young bloom which may improve under the very conditions which spoiled the beauty of the over-developed one. Make it a golden rule to have your blooms of fair average size, and perfectly fresh, and of good shape, rather than have some larger and others less so.

Form, size, brightness, and substance are the distinguishing features of a perfect rose bloom. As regards form, this implies that the flower must have plenty of petals of good substance, arranged in such a manner as to show a good circular outline, combined with a full centre. The size, too, must be the usual average of the variety, and the colour should be fresh, brilliant, and pure. In judging it is usual to award three points for a good average bloom, two for a medium one, and one for a fair one. Thus, one point would be allocated for perfection of form, another for size, and a third one for freshness, brightness, and purity of colour. Any bloom which is above the average is usually given an extra point—four in all. Select what you consider a typically

perfect bloom, and use this as the standard for appraising the points of the remaining blooms. Blooms that are likely to open too fully in the heat of a tent or room, and show open centres, should never be included, as they will diminish the point value of the other flowers. Care should also be taken not to show duplicate blooms, nor to exhibit synonymous varieties. When the merits of two exhibits are very close to each other as regards the quality of the flowers, the judges usually take into consideration the taste and skill shown in the arrangement of the flowers, so that it is wise to see that the latter are effectively staged.

And, lastly, in arranging decorative roses, avoid overcrowding. Arrange all in a light, graceful manner, and if a number of kinds are being staged in one class, try to place the colours so that they blend harmoniously together. More than this we need not say, since every exhibitor will learn more about the real art of exhibiting roses in one or two competitions at a show than by reading the most precise and candid advice published in an article or book.





A ROSE EMBOWERED ARBOUR.

The varieties used are American Pillar, a single-flowered Multiflora Rose with a pink centre, and Dorothy Perkins, a Wichuraiana, with rosy-pink flowers.



AUSTRIAN HYBRID ROSE, "CHRISTINE."

Colour, bright copper, orange and yellow. Awarded Gold Medal, N.R.S., 1916.
Good bedding variety.

HOW TO GROW POT ROSES.

No phase of horticulture gives more pleasure to the amateur than the growth of roses in pots. To have well-formed, brightly-coloured, and deliciously-perfumed blossoms of the finest varieties in April and May is the height of ambition to the amateur cultivator. Without special means it is difficult to have the various varieties of hybrid perpetuals in full flower before the time alluded to. With an ordinary greenhouse convenience the plants will flower freely, and, at the same time, last many more years than those which are subjected to hard forcing annually to get them in flower earlier than March. Many varieties of roses succeed upon their own roots, while others—and very often they are some of the best—are too weak in growth to succeed without aid from other stocks.

Best Plants for Pot Culture.—Speaking generally, roses in pots may be grown successfully by purchasing early in November the required number of plants growing upon the manetti or seedling briar, or better still on their own roots, as if for out-of-door cultivation. Such plants are generally plentifully furnished with roots, also with from three to six shoots. By growing them slowly the first season they become well established as pot plants, and will give good blooms in May without any artificial heat whatever; indeed, it is better that they should have none the first year so as to give time for the plants to recuperate themselves from the check of replanting.

Potting.—Pots eight inches in diameter are large enough for the strongest plants the first year; in fact, roses do not require extra large pots at any time. Cut all strong-growing roots to within four inches of their base. Drain the pots carefully and pot moderately firm in a compost of three-parts fibry loam, one part of half-decayed horse manure, with the addition of a handful of bone-meal to every peck of the compost. Stand the plants in a cold frame until the new year, or even a month later. If the soil is moist, as it should be when used,

but little water will be required until new growth begins. Just give sufficient to keep the soil moist and no more. Early in January cut the shoots back to within four inches of their base, to induce strong shoots to form (see short lines A in accompanying diagram, Fig. 1). Give the plants a position as near the glass as possible, where they will get abundance of air and light to induce a stocky growth. Water must be liberally, yet carefully, supplied. Syringe the plants overhead occasionally with tepid water, to keep the foliage clean and free from dust and insect pests. Great care must be taken to avoid cold draughts of air coming in contact with the young

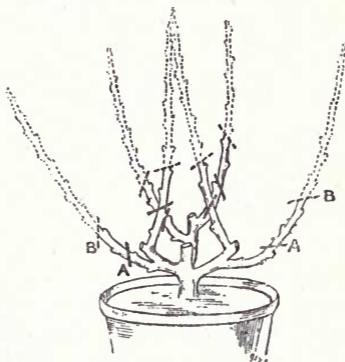


FIG. 1.—HOW TO PRUNE A H.P. ROSE.

and tender foliage, otherwise the latter will, as a result of the chill received, fall off. Shade from bright sunshine, and admit air at the apex, rather than the side of the house, when the sun begins to shine brightly. Close the ventilators early in the afternoon, syringing the foliage at the same time.

General Treatment.—As soon as the plants have done flowering stand them out of doors, plunging the pots to their rims in cinder ashes, or in a sunny part of the garden, in a thoroughly exposed situation to induce the wood to become well ripened. While the plants are in this position

they must not suffer for want of water at the roots. Re-pot during August or September. Keep the plants outdoors plunged as before in ashes. In October remove the Teas to a cold frame, but leave the H.P.'s and the H.T.'s outdoors. When cold weather sets in, spread some dry litter between the plants to protect the pots from injury by frost. If the plants are to be grown in a cold greenhouse, let them remain outside until January, then remove to the greenhouse, clean thoroughly, and prune. If to be forced, then early in December or January prune the shoots to within four or six inches of where they were shortened the previous year (see B, Fig. 1).



FIG. 2.—HOW TO PRUNE A TEA ROSE.

Really the strong shoots should be shortened to B, and the weaker ones to A. Tea, China, Fairy, and Noisette roses require pruning like example shown in Fig. 2; that is, shorten all strong shoots about half way, and moderate ones to within three inches of their base. Stand the plants in the greenhouse where they can make steady growth, giving them a temperature of 45 to 55 deg., to gradually come into flower in early spring. The same attention to watering, keeping in check insect pests, and syringing the foliage as in the year previous, should be attended to. When growth has so far progressed as to expose the flower buds, some

stimulant supplied to aid in inducing the blooms to grow to the fullest extent will be an advantage. A sprinkle of artificial manure or bone dust will have the desired effect. Liquid manure from cow, horse, or sheep dung, with the addition of a little soot, will assist the growth considerably.

Own-root Plants.—Plants growing upon their own roots are useful in a small state. For instance, a plant in a three and a-half inch pot and carrying one large bloom is a useful subject for filling vases in rooms. Such plants are easily produced. After the plants have flowered in May or June take off the current season's shoots a few inches from the base, insert them four inches long in a large pot, with the soil sunken sufficiently low to enable the cuttings to be below the top of the pot, so that they can be covered with a square of glass to maintain them in a moist and close condition. Plunge the pot in a gentle bottom heat, if possible, to induce roots to form early. When well rooted remove the glass and admit air to the plants, and a few days afterwards pot them off singly into three and a-half inch pots, still keeping them in the frame for a time until they are thoroughly established in the pots. The following year cut the plants down to within two or three eyes of the base of new growth. From the newly formed shoots one full-sized bloom will be obtained. Some plants will give one, others two blooms.

Rambler Roses in Pots.—Of late years the cultivation of the Rambler section of roses in pots has become pretty general. They are certainly more attractive from the decorative point of view than the ordinary kinds, and, moreover, are more easily grown. Of course, we are referring to plants that are forced in heat to bring them into flower early. Naturally, no one would need to grow them in the ordinary way under glass, as, unless forced, they would not come into flower much earlier than those cultivated in the open.

We can strongly recommend these roses to those who have large conservatories or greenhouses heated to a temperature of about 55 deg. in spring. They can be grown in pots as bushes, half-standards, or standards. For forcing purposes the plants should be purchased established in pots in the autumn, the plants being plunged to the rims of their pots in ashes in the open till about January, when they should be cleaned, slightly pruned, and placed in a temperature of 45 deg. for a week or two, then removed to a higher tempera-

ture (55 to 60 deg.), until they come into flower, when place them in an ordinary temperature (45 to 55 deg.) during their flowering season. During the early stages of their growth syringe the plants morning and afternoon. As soon as flower buds begin to form feed liberally with liquid manure.

After the plants have flowered shorten the shoots that have flowered fairly close to encourage new shoots to form, then stand the plants outdoors in full sun, plunge the pots to their rims in ashes, or in soil in the garden; in the latter case place a piece of tile, slate, or brick under each pot to prevent the ingress of worms, and let them remain there until winter. Occasional syringing, with water, also an insecticide, and weekly applications of liquid manure, should be given during the summer. In September repot the plants, and replunge them outdoors. In the New Year, prune slightly, and introduce, as before advised, to the greenhouse. Roses so treated will be covered with a profusion of blossom, which will add immensely to the gaiety of the greenhouse or conservatory. The standards and half-standards are very desirable, because they can be grouped effectively among dwarf greenhouses plants, or even mingled with the Hybrid Perpetuals, Hybrid Teas, and Teas. They can be obtained as standards 3ft., 5ft., 6ft., and 8ft. high.

The following sorts are specially suitable for the above purpose: American Pillar, Blush Rambler, Crimson Rambler, Dorothy Perkins, Excelsa, Goldfinch, Hiawatha, Lady Gay, Paul's Carmine Pillar, Queen of the Belgians, Shower of Gold, Tea Rambler, and White Dorothy.

Dwarf Polyantha Roses in Pots.—These again are charming dwarf roses for forcing in pots for spring flowering. They average one to three feet high, are of bushy compact growth, have pretty foliage, and bear their dainty miniature flowers in bunches in liberal profusion. Procure the plants established in 5 or 6in. pots in autumn, plunge them in ashes in a cold frame, and expose them fully to the air, except in wet or frosty weather. In January thin out any weak or sickly shoots, and just cut off the unripe tips of the other shoots, then wash the pots, remove the loose soil from the surface, and in its place put a mixture of two parts loam and one of old manure, adding a handful of bone-meal to each gallon of compost. Ram this down firmly, give a good watering, and place in a temperature of 40 to 45 deg. till growth begins, then place in a temperature of 55 to 60

deg. till they flower, when remove to the conservatory or ordinary greenhouse. Syringe the foliage twice daily until they begin to flower, and feed once a week with liquid manure. After blooming thin out the old flowering growths, place outdoors, plunged in ashes, repot in September, and in October remove to a frame as before.

Suitable kinds to grow thus are: Anna Marie de Montravel, Cecile Brunner, Etoile d'Or, Eugenie Lamesch, Frau Cecile Walter, Jessie, Maman Levavasseur, Madame N. Levavasseur, Mignonette, Mrs. Taft, Mrs. W. Cutbush, and Orleans Rose.

Maréchal Niel in Pots.—In addition to being grown as a climber, as described in the chapter on Greenhouse Climbers, this popular rose may also be grown as a dwarf plant in pots. For this purpose, cuttings of young shoots about four to six inches long, each furnished with a "heel" or thin slice older wood at its base, should be inserted in three-inch pots of sandy soil any time in spring. Place a quarter-inch of sand on the surface of the soil, make three holes an equal distance part close to the side of the pot, and 2in. deep. Insert the cuttings in these, give a good watering, and plunge the pots in fibre refuse in a propagating frame, or in a hotbed. When well rooted plant the cuttings singly in 4in. pots, using a compost of two parts sandy loam, one of good leaf-mould, and a liberal amount of sand. Pot firmly, and place in a temperature of 55 deg. Maintain a moist atmosphere, and syringe the plant two or three times daily.

As soon as well rooted transfer the plants to 5 or 6in. pots, using a similar soil, and still keeping the same temperature. When the roots have taken thorough possession of the soil, give a further and final shift into eight or nine-inch pots. The compost in this case should consist of good, greasy, heavy loam, two parts and half-part each of equal proportions of well-decayed manure, leaf-mould, and sand. To each peck of this compost add one pint each of bone-meal and charcoal. Provide good drainage, and well ram the new compost in the pots. Place a stake to each shoot, and stand the pots in a cool greenhouse, syringe the plants twice daily, and when well rooted feed once a week with liquid manure. In August place the plants outdoors in full sun, standing them on a bed of ashes. In November lay the plants on their sides, and in frosty weather cover the pots only with litter. In January wash the pots, cover off

the soft ends of the shoots, and place the plants in a temperature of 45 to 50 deg. The shoots by this time should be 8 to 12ft. in length. They can either be trained up the roof, the pots being placed together on the front of the stage, or four bamboo sticks 3 to 4ft. high can be placed at equal distances apart around the inside of the pots, and the shoots twined around these. Syringe daily until they flower, and feed liberally with liquid manure. Exceptionally fine flowers may be obtained by following this code of treatment.

After flowering, cut the stems back to 6in. from the soil, and withhold water till new growth begins, then give a good watering, repot, keep in doors till August, then place outdoors, and treat as previously advised. Two to three shoots may be allowed to grow this time, each being trained to a vertical stake. In January train the shoots around stakes, as previously advised. Continue each year in the same way, so long as the plants grow freely, otherwise throw them away and rear new ones.



GREENHOUSE CLIMBERS.

ROSES have always been, and will unquestionably continue to be, very popular climbers in heated and unheated greenhouses and conservatories. And, perhaps, the most popular and universally-grown of all the climbing varieties is the *Maréchal Niel*. But, alas, how seldom does one see it grown to perfection in small greenhouses. The chief reason for this failure is the all too frequent mistake made in omitting to prune the plant properly in the first instance. Most amateurs are too eager to get plenty of flowers the first year, ignoring the fact that if a plant with limited root formation has to support stems 8 to 10ft. long, and bear flowers the first season its energies are so crippled that it cannot put forth strong new growths to bear flowers in succeeding years. Hence we see the plants struggling on with one or more main stems and weak lateral growths, which are incapable of producing healthy foliage or fine flowers. If the amateur would but do as advised further on, boldly cut the long shoots back to within about six "eyes" from their base at planting time, and sacrifice flowers the first year, he would, instead of weak, puny growth, get fine young vigorous shoots to yield him magnificent flowers the second and subsequent years.

Besides the *Maréchal Niel*, other popular, free-growing, and free-flowering climbers for heated or unheated greenhouses, we have the Climbing *Niphetos*, which bears lovely pure white flowers, which are most beautiful and comely either in the bud or large state. This is a popular buttonhole rose, available in winter and early spring. Then we have also the exquisitely-coloured *William Allen Richardson*, a noisette, the orange-yellow and white-tinted buds of which are so admirably suited for buttonholes in spring and early summer. *Lamarque*, again, is another dainty buttonhole Noisette, with white and lemon-tinted flowers. *Fortune's Yellow*, also a Noisette, is a good climber with orange-yellow and metallic-red flowers, which does well as a greenhouse climber. All the foregoing are vigorous growers, and are capable of covering a large space on the roofs of greenhouses and conservatories.



A GOOD PILLAR ROSE, "BLUSH RAMBLER."

A Summer-flowering, vigorous growing, and free-blooming rose. Colour, blush.



A. G. 223

ATTRACTIVE PILLAR ROSES.

The varieties portrayed are Dorothy Perkins in the foreground and White Dorothy in the background.

Of less vigorous habit, but, nevertheless, very free flowering climbers, producing a plentiful crop of beautiful button-hole flowers in spring, are: Climbing Liberty, crimson, fragrant; Climbing Caroline Testout, warm pink; Climbing Mrs. W. G. Grant, rosy-pink (H.T.S.); Climbing Perle des Jardins (Tea), canary-yellow; Climbing La France (H.T.), pink; and Reine Marie Henriette ("Red Glory"), cherry-red (Tea); and the Gloire de Dijon, buff (Tea). Any of the above are suitable for the back walls of greenhouses, or for growing up the roof of those of limited size.

How Best Grown.—There are two ways of growing climbing roses under glass, and these are in special beds—by far the best plan—and in pots or tubs. Strong growers like the Maréchal Niel, Climbing Niphetos, W. A. Richardson, Lamarque, and Fortune's Yellow, require plenty of root room in order to enable them to make free and unrestricted growth. Confined to pots or tubs, the growth is liable to be stunted, and the crop of flowers inferior in quality and quantity. The less vigorous sorts described in the previous paragraph may, however, be grown in 10 or 12in. pots, or in tubs 18in. square with success.

Compost.—For culture in beds the staple of the compost should consist of two parts of good mellow turfy loam, of a medium texture, and one part of equal proportions of well-rotted manure, fine charcoal, burnt earth, wood ashes, and coarse sand. To each bushel of compost add a gallon of half-inch bones. Mix the whole thoroughly together a few weeks beforehand. The site of the bed, which should be inside the structure, should be dug out to a depth of 3ft., and a width of 4ft. for each rose. If this cannot be managed, then make a bed on the surface 3ft. square and deep, using dry bricks to form the boundary. In either case put in a foot of broken bricks, and on this a two-inch layer of fresh turf laid grass-side downwards. On this place the prepared compost, treading it down firmly as the soil is placed in position. For pot culture use a similar compost. Do not attempt in either case to sift the compost, as the rougher and more fibrous it is the better. In the pot or tub put about three inches of drainage, a layer of rough soil fibre over this, and then add the compost, ramming it down firmly.

Planting and Potting.—The next step is to plant or pot the roses. Each plant will, of course, be received in

a pot. Immerse this over-night in water for half an hour to ensure the whole of the soil and roots being made moist. Next day turn the plant out of its pot, remove all old drainage and loose soil from the base, then gradually remove some of the mould from the top and sides to set the roots free. Now set the ball of soil and roots in the centre of the pot, tub, or bed, sufficiently deep to allow a couple of inches of compost to be placed on top, spread out the roots carefully and cover them with fine soil, then gradually adding compost and ramming this down firmly as the work proceeds. When completed, make the surface level and firm, and in the case of pots and tubs see that space of about an inch is left for the reception of water. Firm potting is most essential to first of all promote a sturdy growth; and, secondly, to prevent the compost becoming spongy and sour. After potting and planting, give a thorough application of tepid water to settle the compost about the roots. Those planted in beds or tubs will not require any more water for two or three months, and those in pots should only be given any when on rapping the sides a more or less clear sound is emitted, indicating want of moisture.

Pruning.—Now we come to the most crucial point in growing climbing roses under glass. It should be taken as a golden rule that all climbers when planted or potted for the first time should be pruned fairly close. The object of following this rule is primarily to reduce the strain upon the resources of the roots. If a long length of stem be allowed to remain the warmth of the greenhouse will excite the reserve food in the cells into activity, and any shoots that develop will subsist upon this reserve food, so long as it will last. The cells will, in consequence, be depleted of food, new growth, therefore, cannot continue, and comes to a standstill. The cells of the existing roots naturally being in a lower temperature to that of the air in which the shoots are placed do not respond so quickly in sending up a fresh supply of food to supplement the exhausted store in the stem cells, and so the new growth becomes starved, puny shoots and buds are, therefore, the inevitable result. Now, if we prune away the shoots at planting time, we maintain a more equal balance between root and stem, reduce the drain on the reserve food in the roots to a negligible quantity, and give them an opportunity of exercising their energies in forming new roots instead of supplying sap (food) to an undue

proportion of new growths on the stems. Hence, therefore, it will be seen that it is wise to prune hard the first season, sacrifice flowers for that period, and instead secure strong, healthy growths for the future. Prune the stems then to four or six "eyes" from their base.

In subsequent years, in the case of the *Maréchal Niel*, prune as follows: A year after planting, in December or January, simply cut off the soft unripened ends of the shoots produced as the result of the close pruning. These shoots will then, in due course, produce laterals, each, as a rule, carrying flowers all up the sides. Now, as the *Maréchal Niel* produces one crop of flowers only in a season, and that in spring, experience has proved that it is wise to prune the shoots that have flowered to two or three "eyes" from their base, directly after flowering in May or June. In a few weeks new shoots will develop from the latent buds, and only two of the strongest should be permitted to grow on each spur. These, if all goes well, will develop into vigorous shoots, attaining a length of 6 to 10ft. or more in a season if grown in beds, or 4 to 5ft. in tubs or pots. Follow a similar course each year of simply cutting off unripe ends in December, pruning hard back after flowering, and training up new growths in summer. Supposing the greenhouse or conservatory be a large one with ample roof space, this system of hard pruning need only be practised the first year. In subsequent years the shoots, with their laterals may be allowed to grow as they please, spreading them well out. Each winter prune the laterals of the previous summer to a couple of "eyes," and cut off the unripened tips of the leading growths. Weak growths should at the same time be thinned out, and some of the older growth cut back close to a vigorous young shoot. By adopting this code of treatment, the roof may be covered with healthy, firm-jointed growths, which, in turn, will yield thousands of roses. Such fine specimens can only be obtained from climbers planted out in beds, as there must be ample root room to encourage the free growth of the wood. We once had a *Maréchal Niel* rose which in six years from the time of planting covered a space of over 1,000 sq. ft., and yielded as many as 2,000 perfect blooms at a time.

All the other climbers require to be pruned differently to the *Maréchal Niel*. Prune hard the first year. In subsequent years freely thin out in December all weak and puny growths, and cut away the soft unripened ends of leading and

lateral shoots. After flowering carefully examine each plant, and thin out the older or two-year-old wood, retaining the strong and well-placed growths of the preceding year. The aim should be to keep a plant well supplied with well-ripened leading shoots and laterals. This particularly applies to Climbing Niphetos, W. A. Richardson, and Lamarque. Never permit overcrowding with weakly or sickly growth; this prevents the strong, healthy shoots getting their fair share of light and air, and forms a rendezvous for thrips, red-spider, mealy bug, and mildew.

General Treatment.—Commencing with the New Year, get the shoots pruned and retrained as widely apart as possible. As soon as the buds begin to burst, syringe the plants every morning and afternoon with water of the same temperature as the air of the greenhouse. When the flower buds begin to get well advanced, discontinue the syringing. Give air on fine, warm days, but never when the wind is in the east or north-east. Cold draughts are most injurious to indoor roses. The slightest chill paralyses the delicate organisation of the young leaves, and causes them to fall wholesale, leaving only the buds on the shoots, and these, being deprived of the support of the foliage, will also wither and die in due course. As the spring advances shade from bright sunshine is essential, and air also should be admitted early to disperse the moisture deposited on the blooms, otherwise the sun will scald the petals.

The second and subsequent years the roots should be fed weekly in spring and summer with one of the fertilisers or liquid manures described in the article on Manures for Roses. A few crystals of sulphate of iron should be placed occasionally on the surface of the soil, and allowed to gradually dissolve. The iron will impart a rich tone to the foliage, and intensify the colour of the flowers. During the summer and autumn months give plenty of air in fine weather in order to ensure the thorough ripening of the wood. Unless the wood—i.e., the new growths—become firm by winter they cannot be expected to produce flowers in quantity or of good quality. Plants in pots must be kept uniformly moist. No hard and fast rule can be laid down as to how often to water. Pots and tubs should be tested once a week in spring and summer by rapping their sides with a stick. If the resultant sound be a dull one, no water is needed, but if it be light in tone, then give a copious supply.

Those in beds should be given a thorough watering early in January, again in March, June, and August, then no more.

Pests and Diseases.—The chief enemies of climbing roses grown under glass are aphides, thrips, red-spider, and mildew. Every rose-grower should provide himself either with a pneumatic hand-sprayer or a good spraying syringe, like the "Abol." Directly he sees any signs of aphides infesting the shoots, he should spray them with an insecticide, otherwise they will soon cripple both shoots, leaves, and buds. Thrips and red-spider are both troublesome pests, as they infest the undersides of the leaves, pierce the epidermis, suck out the sap, render the leaves pale in colour, and cause them to fall off. Spraying frequently with an insecticide will keep both in check.

Mildew usually attacks roses in damp and ill-ventilated greenhouses. Directly the white mould is seen on the leaves apply flowers of sulphur by means of a sulphurator, also paint the hot-water pipes with a mixture of milk and sulphur. The *Maréchal Niel* rose is liable to be attacked by a disease known as "Canker." This appears in the form of a swelling or excrescence at the point of union between the stock and scion. Trees grafted or budded on dwarf stocks are more liable to attack than those budded on Briar Standards. Experts consider it to be due to some physiological defect in the tissues, the food materials not being able to pass with equal freedom or facility between the stock and scion. Thus a preponderance of food material accumulates either in the stock or scion, and sets up a sort of abnormal swelling, which eventually splits the bark and tissues, and forms a cancerous wound. The only known remedy is in the case of a slight attack to cut away the diseased tissue entirely, and then to paint the wound with Stockholm tar. In bad cases the tree must be sacrificed. It has been observed that plants reared from cuttings do not suffer from canker, and plants budded on Standard Briars are less prone to attack. We, therefore, recommend that, where climbers are to be grown in beds, they should be selected budded on Standard Briars, and reared from cuttings in the case of those to be grown in pots or tubs.

Yet another form of canker has of late years attacked climbing roses. This is due to a fungus which finds its way into any fracture in the bark of the shoots, and eventually

causes the tissues and bark to split and form cancerous wounds. It appears first in the form of red patches on the bark, and it is said if these be at once painted with Stockholm tar, the growth of the disease will be arrested. Where the tissues are ruptured, however, the only remedy is to cut away the infested shoots and burn them.

One more fungoid disease remains to be mentioned, and that is the Black Mildew. It attacks the young shoots and the stalks of the flower buds, causing them to turn black, wither, and die. It also attacks the young leaves, causing them to fall off wholesale. Where the disease appears, cut the damaged buds and shoots, and collect all fallen leaves, then spray the trees with the following solution: Add one ounce of carbonate of copper and half a pint of liquid ammonia to half a gallon of water; mix thoroughly, and add more water to make ten gallons. Directly after spraying, and whilst the foliage is wet, apply flowers of sulphur freely by means of a sulphur bellows.



ROSES AS ANNUALS.

FEW rosarians are aware of the fact that it is possible to rear roses from seed, and to have them in flower a few months afterwards. Yet such is the fact. Some of our seedsmen offer seeds of two types of roses that may be had in flower within three to six months of sowing the seeds. One interesting strain is that known as the Fairy Rose, a dwarf form of the polyantha type of neat, compact growth, small, elegant leaves, and pretty double, semi-double, or single flowers, borne in bunches. The seedlings make dainty little plants grown in three-inch pots the first season. They can, of course, be grown on in future years in larger pots, treating them like ordinary pot roses. The other strain is the large-flowered Perpetual Hybrids, which produce large flowers, a goodly proportion being double-flowered, and delightfully fragrant. The colours are of all shades, except yellow. The reader will certainly be very pleased with the Fairy Roses, and among the others he may get one or two novelties worth growing in the garden.

Sowing the Seeds.—First of all procure the seeds, which, by the way, are sold by Messrs. Barr and Sons, King Street, Covent Garden, London, W.C., and Messrs. Bees, Ltd., Liverpool, and then proceed to sow them early in spring as follows: Prepare a compost of two parts good sandy loam, and one of equal proportions of leaf-mould, fine charcoal, and silver sand. Pass about one-fourth of this mixture through an eighth of an inch sieve. Get a shallow box, about 3in. deep, put in an inch of cinders, then a layer of rough soil siftings, and enough compost to fill the box to half an inch from its rim. Press this down moderately firm, and level with a piece of board. Sow the seeds an inch apart, and then cover them with a quarter-inch of the finely-sifted soil. Again press the soil slightly, then hold the box in a vessel of tepid water nearly to its top until the water percolates to the surface of the soil. Place the box in a temperature of 45 to 55 deg., cover it with a sheet of glass, and of brown paper, and keep the soil just moist until the seed-

lings appear, when remove the glass and paper. Place the box on a shelf near the glass to prevent the seedlings being drawn, and keep there until they have made three or four leaves.

The Seedlings.—Procure some two-inch pots and a compost of two parts loam, one leaf-mould, and a little sand.



HOW TO RAISE "ANNUAL" ROSES.

Fig. 1. Rose seeds. Fig. 2. "Hip" or pod with seeds. Fig. 3. Seeds sown in a pot. Fig. 4. Seedlings. Fig. 5. Transplanting the seedlings. Fig. 6. Seedlings planted singly in a 3-inch pot.

Plant one seedling in each pot. Grow on a shelf near the glass until the pot is filled with roots, then transfer to a three-inch pot, using similar soil, but adding a handful of bonemeal to each gallon. Pot firmly, again place on the shelf, keep uniformly moist at the roots, and syringe morning and evening. At the end of May stand the plants on a bed of ashes in a cold, sunny frame, and then in a month or



HYBRID TEA ROSE, "MADAME ABEL CHATENAY."
A popular rose for standard, bedding or pot culture.
Colour, salmon-pink. Fragrant.

so the seedlings should come into flower. As the seedlings come into flower, select those that are producing the most promising blooms for growing on another year, and discard those that have poor flowers and a weak constitution.

Subsequent Culture.—In September those retained may be transferred to five or six-inch pots in similar soil to before, and afterwards returned to the frame. Keep them there until January, then slightly prune the strong shoots, and cut away all weak ones, and place the plants in a temperature of 45 to 55 deg., or in a cold house to start new growth, and in due course produce flowers. When growth commences feed the roots twice weekly with liquid manure, and syringe the foliage morning and afternoon with water to keep red-spider in check. After flowering place in a cold frame, repot in September, and treat as before. In a year or so the Fairy Roses will grow into neat, dense bushes laden with flowers. The large-flowered varieties can, if desired, be planted in the garden the first autumn, where, of course, they would in due time develop into large bushes, and yield a profusion of flowers for cutting.

Seeds of Hybrid Perpetuals, Hybrid Teas, Teas, and even the Maréchal Niel, may be sown in the same way. The seedlings of the three former should, however, be planted out in the garden the first autumn. Seedling Maréchal Niels would have to be grown on entirely under glass.

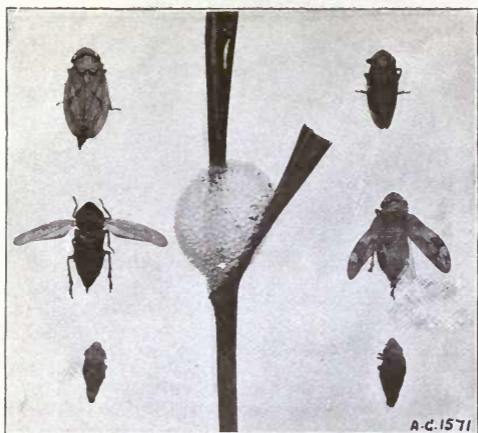


ENEMIES OF ROSES.

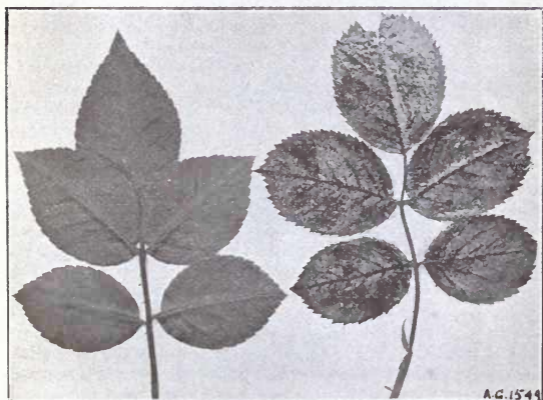
FOLLOWING are the chief insect, fungoid, and other pests that attack roses in the garden and greenhouse, with brief remedies for their eradication:—

INSECT AND OTHER PESTS.

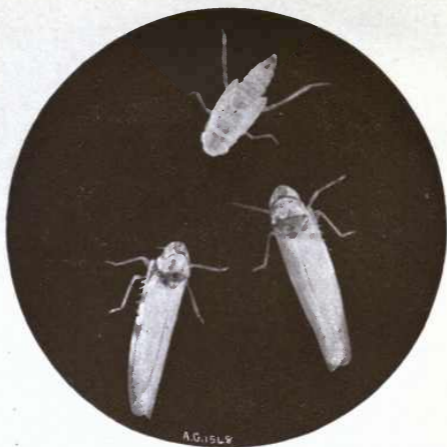
Aphis or Green-fly (*Aphis* [*Siphonophora*] *rosæ*).—Of all the enemies of the rose this one must take the pre-eminence for destructiveness. It is a pale green, small, fly-like insect, with or without wings, and with slender legs. Aphides are very tender, and easily crushed. The mischief they perpetrate is that of congregating around the points of the shoots and young leaves, and sucking the juices therefrom, causing a stunted growth. Although the individual insect is easily crushed and destroyed, yet they are possessed of such an enormous power of increase as to fully make up for their weakness. A single female produces about ninety young ones. In a week or ten days these again commence reproduction, and so on until ten or a dozen generations are produced. The number of insects thus brought to life is enormous, the second generation amounting to 8,100, the third to 729,000, the fourth to 65,610,000, and so on. Can we wonder at our rose trees failing with such a family to support? Fortunately they are subject to enemies as well, which tend to keep them considerably in check. During the summer aphides are viviparous, producing their young alive, but in the autumn eggs are laid which will not hatch till spring. As the winter destroys all the existing aphides, early spring is clearly the most favourable time to combat them. One of the best of preventives is robust health in the rose bush; a weak plant is always more liable to an attack than a strong one. Under glass the most effectual remedy appears to be fumigation, or a strong syringing with clear cold water. The use of the syringe or garden engine out of doors at frequent intervals proves very effectual in clearing a bush of these pests or in preventing them effecting a footing. If stronger measures must be resorted to, then some of the various insecticides



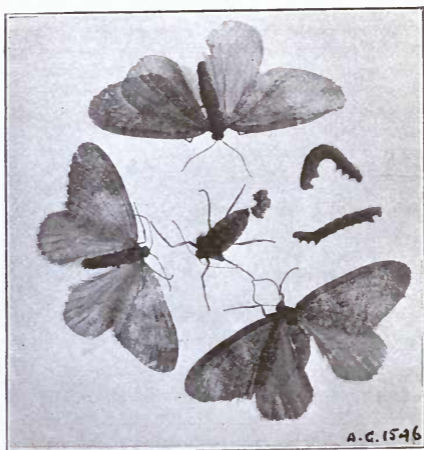
CUCKOO SPIT OR FROGHOPPER FLIES.



ROSE LEAVES—ONE HEALTHY AND ONE INJURED BY
FROG FLIES.



FROG FLIES WHICH OCCASIONALLY INJURE ROSE LEAVES.



WINTER MOTHS (WINGED MALES, ONE WINGLESS FEMALE);
CATERPILLARS, AND GROUP OF EGGS SLIGHTLY ENLARGED.

placed before the public should be used, or some home-made remedy as tobacco water, prepared by dissolving 1½ lbs. of soft soap in two gallons of hot water, and mixing therewith the juice obtained by steeping four ounces of tobacco in a quart of boiling water and leaving until cold; well mix and dilute with twenty-five gallons of water. Quassia is also another effectual insecticide. Give ten ounces of quassia chips a good boiling in a gallon of water, and while hot stir in an ounce of soft soap. Before using dilute with nine gallons of water. Paraffin is another good insecticide if used with care. Boil for a few minutes a pound of soft soap in a gallon of water, then add a pint of paraffin and stir vigorously. A quart of this mixture should be diluted with fifteen gallons of water, and the bushes are the better for being well syringed with clear water a few hours after an application.

Ants.—These, though they do not directly injure plants generally, yet in an indirect way often prove injurious. Ants, as is well known, take great care of aphides, and may often be seen carrying the young ones to pastures new, so that they are leagued with the gardeners' and with the rosarians' greatest enemy. A sticky sweet liquid, called honey-dew, secreted by the aphides, constitutes an attraction for ants, who feed upon it. Cases have also been observed where rose blooms have, as it were, been saturated with this honey-dew, and eaten entirely by ants. The remedy is obvious; if there are no aphides there will be no ants. Vigorous syringing with water or quassia solution will disturb the ants, and cause them to go elsewhere; while, if their nest or runs can be traced, paraffin may be poured over them.

Leaf-Cutting Bee (*Megachile centuncularis*). This bee produces a similar spoliation of the foliage to the antler sawfly. It very carefully nips out of the edges of the leaves circular pieces, with which it builds its nest. It does its work neater and with more exactness than the sawfly, and makes no perforations. The best remedy is to catch the bee with a butterfly net. It possesses a sting.

Rose Beetle (*Cetonia aurata*).—This is a handsome beetle, being bright green shaded with rich gold, and about three-quarters of an inch in length. It may often be seen flying round and over rose blooms during summer, or else engaged in tearing the petals in its effort to get at the stamens

and pollen. White and light-coloured roses are greater favourites with it than dark ones. Hand-picking of the beetles is the only effectual remedy. The larvæ does no damage, as they feed only on decaying vegetable matter.

Bedeguar Gall Fly (*Cynips rosæ*).—Most people have observed what appear to be small bunches of moss enclosing rose shoots on wild and sometimes garden roses. These are galls, and known as the Bedeguar Gall or Rose Bedeguar. In summer they are green, but change on the approach of autumn to red. They contain grubs or maggots, which change to pupæ in the gall and emerge as small flies the following spring. The galls are produced by the irritation and stoppage to the flow of sap owing to the insertion of eggs in the bark of young shoots by the fly, but why the growth should take the peculiar and pretty form it does is not exactly known. Their presence is objectionable on garden roses, as the shoots are unable to grow properly; the latter should be cut off before the fly emerges.

Froghopper or Cuckoo Spit (*Philænus spumarius*).

—The presence of this insect is easily recognised by the little masses of froth adhering to the branches of roses and other shrubs, grass, etc. If this be brushed or washed away, a pale yellow or green insect is seen; this is the larva of the froghopper, a brown insect seen in autumn, and which, if touched, jumps to an incredible distance. The larva produces its frothy covering from the sap of the plant on which it feeds. A good syringing will get rid of the larvæ. The parent Frog-Fly also does considerable injury to the leaves by sucking out the sap, and causing the surface to be pale or spotted. They are, however, difficult to catch, owing to their agile habits.

Red Spider (*Acarus tellarius*).—This pest, which is not an insect but a mite, is more prevalent indoors than out, though not by any means confined there. It is an extremely minute object of a red colour, and is hardly discernible to the naked eye. It feeds on the under sides of the leaves, which turn to a yellowish colour, and if very badly infested drop off. It flourishes best in hot and dry quarters, and its greatest enemy is damp and cold water. Plants which are affected should be well syringed with clear, cold water daily until the enemy is eradicated.

Scale (*Aulacaspis rosæ*).—This pest puts in an appearance if indoor roses are much neglected. It is a tiny dull orange-crimson insect, which lies close to the bark and sucks out the juice. It does not move except in a young state. The dead females form a nest in which the young ones are hatched. Syringing with insecticides will kill the young scale, but the older ones must be removed with a blunt stick or by means of an old toothbrush.

Moths.—The larvæ of several moths infest the shoots or foliage of the rose, and inflict more or less injury upon them. It would take up far too much space to describe the various kinds in detail in this book, so we shall content ourselves by merely giving a list of the most injurious kinds, referring the reader to works on entomology for detailed descriptions of each. It is enough for us to say here that all the larvæ have similar habits in common, and require similar remedies for their eradication. The species that are known to be troublesome are as follows: Winter Moth (*Cheimatobia brumata*), Lackey Moth (*Bombyx neustria*), Vapourer Moth (*Orgyia antiqua*), Buff-tip Moth (*Pygæra bucephala*), Barred Yellow Moth (*Cidaria fulvata*), *Lozotænia rosana*, *Pardia tripunctata*, *Croesia Bergmanniana*, *Peronea variegana*, and several belonging to the *Tinea* group of moths. Some of the foregoing roll the leaves together and feed on the shoots and buds, others form little tunnels in the leaves, causing wavy lines or blotches to appear on the surface, and others gnaw holes in the foliage. During the spring and summer the rosarian must be constantly on the alert looking out for caterpillars, and remove them by hand. In the case of those caterpillars that roll the leaflets together, it is almost impossible to reach them by means of insecticides; handpicking is, therefore, the only remedy. A vigorous shaking of the bushes will cause many of the caterpillars to fall to the ground, but, unless a sheet or sack be placed underneath to catch them, they will crawl up the stems again and do further mischief.

Sawflies.—The larvæ of these insects are exceedingly destructive to rose trees. Some feed on the leaves, others on the pith of the young shoots. The leaf feeders are *Eriocampa rosæ*, *Blennocampa pusilla*, *Emphytus cinctus*, *Cladius pectinicornis*, and *Padi*, *Hylotoma enodis*, *gracilicornis*, *pagana*, and *rosæ*, and *Lydia inanita*. The chief pith-feeding

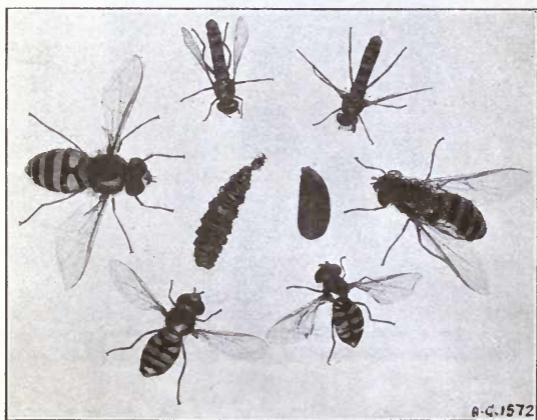
pest is *Pœcilosoma candidatum*. The *Eriocampa* larvæ are slug-like in form, humped in front, with yellowish-green bodies, and an orange coloured head. Those of the *Blennocampa* are short, stumpy, with green bodies, pale brown heads, and short hairs on their backs. The *Emphytus* larvæ have stout tapering bodies, dark green on top, light grey sides, white legs, and yellow or brown heads. They feed on the leaves till fully grown, then bore into the shoots and become pupæ. The larvæ of the two species of *Cladius* are flat in shape, tapering from the middle to each end, and have green or yellowish-green bodies. Each segment of the body contains three rows of warts, and each wart is crowned by a single hair. The larvæ gnaw holes in the leaves. The *Hylotoma* larvæ are bluish-green with yellow spots along both sides of the middle line, and black ones furnished with bristles below. They gnaw holes in the edges of the leaves. The *Lydia* larvæ are yellowish-green, with red lines on the sides, and black spots. They form a tubular chamber from portions of rose leaves, and remain thus protected till they attain their full growth, then descend to the earth and pass into pupæ. Lastly, there are the larvæ of *Pœcilosoma*, which bore into the young shoots of rose trees and cause them to wither and die. They are of a dull white or yellowish colour. All the leaf-feeding larvæ may be destroyed by sprinkling the foliage with sulphur or hellebore powder, or syringing it with one of the standard insecticides now on the market. Where only a few of the larvæ are to be seen, handpicking is the best plan to adopt. In the case of the pith-boring kinds, cutting off and burning any shoots that show signs of withering suddenly will make sure of getting rid of these pests. Any flies seen hovering over rose bushes should be caught with a butterfly net.

Thrips (*Thrips hæmorrhoidalis*).—This is a small white or black insect affecting the lower surfaces of the foliage of roses grown under glass. It causes the leaves to turn yellow, and if the latter are turned over the pest will be seen, often accompanied with little black dots of excrement. Fumigating with a nicotine preparation, or sponging with soft soap and water is the best remedy.

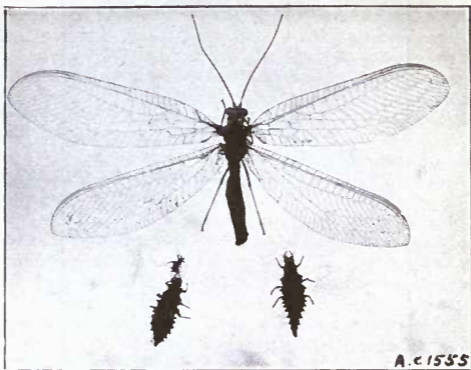
Friendly Insects.—It must not be supposed that every insect seen on rose trees is an enemy. On the contrary, there are several that are deadly foes to the majority of the harmful pests. The Ladybird Beetles (*Coccinellidæ*) and their



CANKER DISEASE OF THE ROSE.

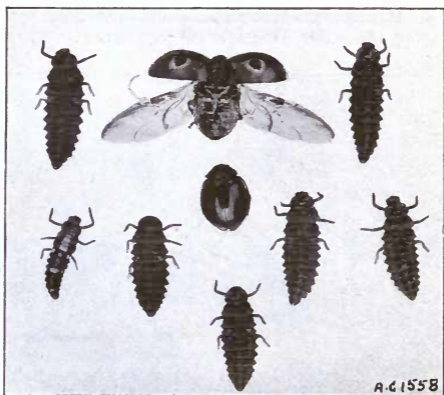


FRIENDLY INSECTS, HOVERING OR HAWK FLIES.



A. C. 1555

A FRIENDLY INSECT, THE LACE-WING FLY WITH LARVÆ.



A. C. 1558

A FRIENDLY INSECT, THE LADY BIRD AND ITS LARVÆ.

larvæ, Hovering Flies (Syrphideæ), Ichneumon Flies (Ichneumonides), and the Lace-wing Flies (Chrysopidæ), for example, attack aphides and the larvæ of moths and butterflies, and help to reduce their number. The Ladybird Beetles—easily recognised by their scarlet and black-spotted coats and their curiously-shaped larvæ called “crocodiles,” or “niggers”—devour aphides by the hundred. The Ichneumon Flies, which are small and wasp-like in form, deposit their eggs in the bodies of caterpillars and aphides, and soon hatch out, the larvæ at once feeding on their hosts. The Lace-wing Fly, an insect with pale gauze-like wings and golden eyes, lays its eggs, each one on the end of a fine filament an inch long, attached to the leaf. Wherever these groups of filaments with little knobs at their ends are seen, do not interfere with them. In due course the eggs will give birth to larvæ armed with formidable jaws, that will eagerly devour every young aphid it can find. The Hoverer or Hawk flies are two-winged insects which hover over rose bushes infested with aphides, lay their eggs among them, these eventually giving birth to small leech-like larvæ that eagerly devour aphides. The accompanying illustrations show several of these insects.

FUNGOID DISEASES.

Anthracnose (*Gloeosporium rosæ*, Hals.).—When a rose is badly infested with this fungus the leaves are small and pale, and the canes die at the tips. Sometimes the stems may be dead for a foot or more from the extremity. Not infrequently one branch will be dead clear to the base, and sometimes two or more are thus destroyed. The dead twigs show pimples quite evenly distributed over the surface, and from some a minute, often curved, horn of a reddish colour protrudes. When such stems are placed in a moist chamber, the whole decaying surface becomes closely covered with numerous, almost brick-red, masses of spores, and the disease spreads rapidly through the adjoining parts of the twigs that seemed healthy when placed in the moist chamber. The rapidity with which the fungus would spread was a subject of surprise. In four days from the time spores were introduced into sterilized sections of rose twigs in test tubes, the whole of the culture would be covered with the spore masses. Burning the infected bush is the only way of stamping out this disease.

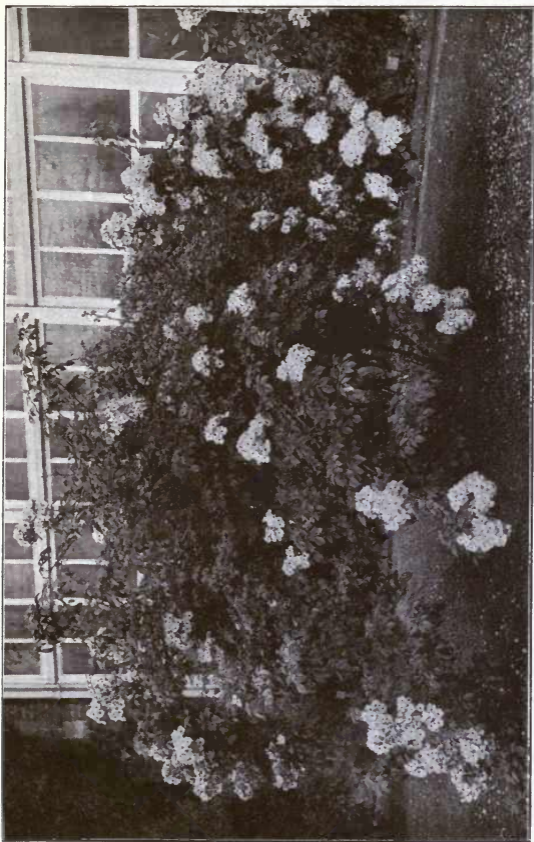
The Black Spot (*Actinonema rosæ*, Fr.).—The Black Spot is a very widespread and conspicuous disease of the rose, first described in 1826, now known in many countries and often much dreaded. The foliage when attacked soon develops the characteristic black spots, and the leaves becom-



BLACK LEAF-SPOT.

1, Rose leaf infested with the fungus, natural size; 2, Threads creeping over the black spots, and bearing the fruit, multiplied by 80; 3, Spores of the fungus contained in the fruit borne on the white threads, multiplied by 400.

ing elsewhere pale shortly fall to the ground. As a result rose houses badly infested with the black spot show but few leaves and fewer blooms. Once trees are badly attacked there is no remedy except to remove and burn the infected leaves. As a preventive, spray periodically in spring and summer



HIMALAYAN BRIAR ROSE, "ROSA MOSCHATA FLORIBUNDA."

A free-growing, bushy habited single-flowered rose, suitable for growing as isolated plants on the lawn.
Colour, white. Summer-flowering. Fragrant.



A.G. 230

A NEW CLIMBING ROSE, "PAUL'S SCARLET CLIMBER."

A very showy variety for pillars, arches, etc. Colour, crimson-scarlet.

with a solution of sulphide of potassium. If many leaves have fallen from the plants they should be gathered up and burned. As with many other diseases, some varieties are more liable to the black spot than others. When possible—that is, when all other things remain the same—it is, of course, wise to grow those least susceptible to the disease.

Canker.—This is a disease which of late years has proved exceedingly troublesome to growers of the Maréchal Niel rose. The lower part of the stem should frequently be examined, and as soon as shrinkage or swelling is observed, cut a little of the bark away to see if it is decaying. The earliest form of canker is a shrinkage in the bark, caused by a fungoid disease, which keeps spreading until it gets all around the stem, then the part above it dies. But before this takes place, a swelling of a warty appearance forms just above it; this is caused by the descending sap being stopped in its downward course; it seems to be trying to make a growth to cover the wound, but, of course, cannot do so. All this knotty excrescence, also the shrinkage, should be cut away, and also all decayed wood and bark; sometimes there will be dark narrow streaks running some distance beyond, these must be followed up until every portion is cut away. Then dress the wound with either Bordeaux mixture, sulphate of iron, two ounces dissolved in a gallon of water; or sulphide of potassium one ounce to twelve gallons of water. If none of these are at hand, rub the part well with flowers of sulphur. After (whichever is used) make a poultice of equal parts clay and cow manure and bind round the wound. The summer is the best time for the operation, as the wound heals over much more quickly then.

Downy Mildew (*Peronospora sparsa*, Berk.).—Some rose growers are troubled with a second form of mildew which differs in many ways from ordinary mildew. It is less easy to detect, and, being more deeply seated, may do greater damage before detected than the powdery mildew. It is likewise less easy to eradicate, because it thrives within the substance, while the *sphærotheca* feeds superficially. The *Peronospora sparsa* is a close relative of many of the most serious mildews, as those of the grape, onion, lettuce, spinach, and the potato disease. The treatment for this is the same as for ordinary mildew.

Mildew (*Sphærotheca pannosa*).—One of the oldest troubles of the rose grower is the mildew. This develops very

4 *ROSES AND THEIR CULTIVATION.*

suddenly on the foliage in the greenhouse or outside it, giving the leaves a powdery appearance, and causing them to become more or less misshapen. In a mild form the foliage may be only mealy, but frequently the surfaces become uneven and

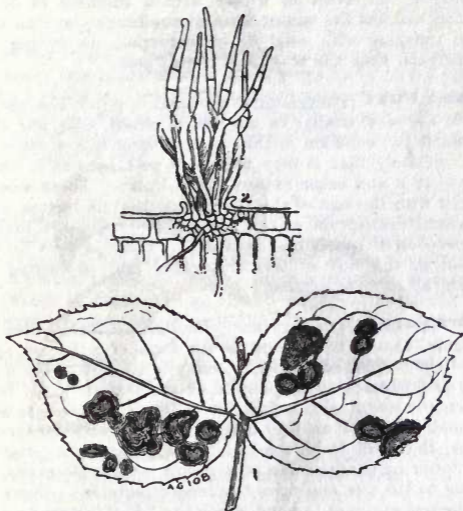


ROSE MILDEW.

1, Portion of stem and leaf attacked by mildew, natural size; 2, Chain of spores of summer fruit, multiplied by 400; 3, Winter form of fruit containing spores which germinate the spring following their production, multiplied by 400.

the whole leaf twisted. If left unheeded the enemy will ruin the plants attacked, and knowing this a remedy has been found and long applied in the shape of sprinkling the leaves with flowers of sulphur. Another good remedy to get

rid of the mildew is to close the house about eight o'clock in the evening, run the temperature up to 75 deg., then with the bellows fill the house full of sulphur, let the house remain closed until it reaches 85 to 90 deg., then admit air gradually. A constant circulation of air is likewise recommended for roses at all times. Potassium sulphide one ounce to two gallons of water sprayed upon the plants has proved an effective



ROSE LEAF SCORCH.

1, Leaflets badly attacked by the fungus, natural size; 2, Section of portion of a leaf, showing a fruiting tuft of the fungus, multiplied by 400.

remedy. Rosarians, from long experience, have come to the belief that rose mildew is induced by a weak condition of the plant, resulting from partial starvation, irregular or excessive watering, and undue exposure to draughts of cold air. The best successes in rose growing, as in other things, attends those who give constant intelligent care to the many details.

Rose Leaf Scorch (*Septoria rosæ*).—This disease is

caused by a fungus which manifests itself first in the form of yellowish patches, which eventually change to a brownish tint, margined by a darker tint. The mycelium penetrates the cells, stops the circulation of the sap, and causes the affected portions to die and fall out, leaving holes in the leaves. As this fungus is common on wild roses and brambles, it readily finds its way on to garden roses.

Spraying the trees in winter with a sulphate of copper solution will kill the winter form of the fungus, and an occasional spraying with sulphide of potassium in spring and summer will keep the trees free of this pest.

Rose Rust (*Phragmidium subcorticatum*).—The genuine rust of the rose, similar to the rust of wheat, oats, and other grasses, is not common in this country upon indoor roses. It is not unlikely that it may become a pest here as it now is in California and other States in the Union. Those who are familiar with the rust of the blackberry need no further words of general description of this fungus. It produces a mass of orange-coloured spores on the foliage. There is very little to be said in the way of treatment save that of cutting and burning all affected plants.

Sprayers.—It is very essential that all insecticides and fungicides should be applied in the form of a fine spray to the foliage. This effects an economy in the use of the materials, and ensures every particle of the leaf or shoot being uniformly covered with a fine film of liquid. There are several small sprayers on the market, fitted with pneumatic pumps, that will force the liquid out at an even pressure. Any florist or sundriesman will supply a suitable make, according to the size and price the reader requires. There are also several syringes, among which the "Abol" may be mentioned as a specially handy and effective instrument. This is suitable for applying insecticides or fungicides, or for ordinary syringing.

Fungicides.—We give below recipes for making really effective fungicides as remedies for the foregoing diseases:

SULPHIDE OF POTASSIUM.

This is also known as Liver of Sulphur. It is not a pleasant-smelling substance, and it has the disadvantage of discolouring paint, so ought not to be used in greenhouses

painted with white or delicate colours. Dissolve half an ounce of the sulphide in a pint of hot water, and add water to make one gallon. It is advisable to add the whites of two eggs to the solution to enable the solution to adhere to the leaves. Apply in spring and summer, either occasionally as a preventive, or directly mildew or other fungi are discovered.

SULPHATE OF COPPER.

Add one ounce of copper sulphate to two gallons of water, and apply this in the form of a thorough spray to the shoots, stems, and the surface of the soil around each tree in winter only, when growth is dormant. This is an excellent remedy for mildew, Black Spot, and Rose-Leaf Scorch. Must not be used on trees in leaf.

CUPRAM.

Another very excellent fungicide for use in the case of trees attacked with fungoid diseases, as Orange Rust or mildew, for example. Mix together one ounce of carbonate of copper, half a pint of liquid ammonia, and two quarts of water, and add water to make ten gallons. Apply in the form of a fine spray to the foliage in summer.

Insecticides.—In addition to those mentioned in connection with each pest, the following are also excellent:

ARSENATE OF LEAD.

Mix 1oz. of arsenate of soda (98 per cent.) and $2\frac{3}{4}$ oz. of arsenate of lead (98 per cent.) in a little water; then add water to make ten gallons. Apply in the form of a fine spray to rose trees in March, to kill the young larvæ of the Winter Moth, etc., and later to destroy other caterpillars.

HELLEBORE.

Mix together 1oz. of hellebore powder (fresh) and 2oz. of flour in three gallons of water, and apply to trees infested with caterpillars in summer.

GLOSSARY.

FOLLOWING are explanations of the principal terms used in these pages:—

Bark Running.—A term used to indicate that the bark of the stock, when cut, lifts or peels freely. This condition is necessary to success, showing there is plenty of sap. Old bark will not run or lift freely, nor will the current season's if growth has finished. Dryness at the roots also influences it by reducing the supply of sap, hence showery weather is best for budding operations.

Bud.—When used in connection with the operation of pruning, this term has a similar meaning to that of "eye," which see. Also applies to the scions used for budding.

Budding Knife.—A specially-made knife, having a keen blade, which, in some cases, instead of rounding at the point, has a cutting edge instead. The end of the handle is also thinned down like a paper knife, only thinner, and is necessary for lifting the bark. As a substitute something thin and flat is needed, e.g., a small, thin paper knife. The blade of the knife used should be sharp, as a jagged or torn cut is longer healing.

Climbers.—Roses with long shoots, budded or grafted near roots—dwarfs; or on briar stems—standards.

Cut-backs.—A term applied to two-year-old rose trees once pruned.

Cutting Briar.—Shoots of the wild Dog Rose inserted as cuttings in autumn to bud the following or next season. Specially suitable for all roses on a medium or heavy soil.

De la Grifferræ Stock.—A vigorous-growing rose of the Multiflora or Polyantha type, used mainly as a stock for climbing roses.

Disbudding.—This signifies the removal of superfluous shoots or flower buds. Thus, in May, rosarians often rub off weakly young shoots of no use for bearing flowers; and in June remove all small or undersized flower buds, where fine blooms are required.

Dwarfs.—A term applied to roses budded or grafted close to the roots of the stock.

Exhibition Roses.—Varieties that bear perfectly formed flowers and of excellent quality, but not necessarily in quantity. Some sorts are good alike for garden decoration and exhibition purposes.

Extra Vigorous.—Very strong growing roses.

Eye.—A term frequently used by rosarians to indicate the dormant growth buds on the shoots of a rose. This and the word "bud" are synonymous terms when used in connection with the operation of pruning.

Free.—A term applied to roses that make a well-proportioned, healthy, and fairly vigorous growth.

Garden Roses.—Any free-flowering, showy kinds that will make a good display in beds or borders, and afford abundance of flowers for cutting for indoor decoration.

Half-Standards.—Roses similar to standards, but with a shorter stem; usually 3ft. long.

Maldens.—Plants budded the previous year, i.e., one year old. The finest exhibition roses are grown thus.

Manetti Stock.—An Italian rose of vigorous habit, used chiefly as a stock for budding or grafting Hybrid Perpetuals on. Best suited for a light soil.

Medium.—Roses that make small shoots and do not attain a large size.

Moderate.—Roses that make growth about midway between medium and vigorous.

Mulching.—Placing a layer of decayed manure on the surface of the soil for the double purpose of feeding the roots and conserving the moisture in the soil. Mulching is of special value on light soils.

Multiflora Stock.—*Rosa multiflora simplex* (Rambler Rose) is sometimes used as a stock for strong-growing Teas and Hybrid Teas.

Own-Root Roses.—Roses not propagated by grafting or budding, but by cuttings or seed.

Pegged Down Roses.—Roses planted in beds and having not more than four of the previous year's shoots bent down to within a foot of the earth. Each shoot to be secured by a stout hooked peg. Peg down the shoots in March, and cut off tips at same time. During summer allow young shoots to grow up in centre of plant. In October cut off close to young shoots those shoots which have borne flowers. Those who have strong-growing roses that refuse to flower when the shoots are growing vertically, are advised to bend the shoots as above suggested, then they will blossom in due course. We have seen some excellent results obtained by following this plan. Not long since we saw Turner's Crimson Rambler grown successfully as an edging to a border on a bank in a suburban garden. The plants were growing six feet apart, and the previous shoots pegged or tied down close to the soil in a continuous line. The shoots so treated formed a continuous band of brilliant crimson, relieved here and there by the foliage. From the centre of each plant, young, vigorous shoots were allowed to grow vertically to form a fresh supply of flowering wood for the next season. After blooming, the pegged-down shoots were cut away, and the vertical young ones trained in their stead the following season.



MULTIFLORA ROSE, "AMERICAN PILLAR."

A vigorous-growing single-flowered rose for pillars, arches or pergolas. Colour, rose with a pink centre. Summer-flowering.

Pergolas.—Rough stems or branches of trees or wrought timber arranged so as to form a picturesque archway, over which free-growing roses may ramble.

Pillar Roses.—Roses with long erect shoots capable of being loosely trained up a post or pillar. Example, American Pillar.

Polyantha Stock.—See *Multiflora simplex* and *De la Grifferæ*.

Rambling Roses.—Roses with long flexible shoots capable of growing without artificial support over tree-stumps, etc. Example: Jersey Beauty.

Robust.—Fairly strong growing roses.

Rooteries.—Roots and stumps of trees arranged in a picturesque fashion, with climbing roses rambling over them.

Scion.—The shoot or bud to be united by budding or grafting to the shoot or stem of another plant called the stock.

Seedling Briar.—The wild Dog Rose reared from seed. See Chapter on "Stocks for Roses." Seedlings ready for budding second or third year after sowing. Suitable for Teas and Hybrid Teas, and heavy soils.

Shield.—The piece of bark containing the bud, or eye.

Shoulder.—The base of a branch where it joins or springs from the main stem.

Standards.—Roses budded on stems of dog rose or briar, and with a clear stem of 4 to 6ft.

Stock.—A plant to which a shoot or bud is attached by the process of grafting or budding. See "Stocks for Roses."

Suckers.—Shoots issuing from the roots of roses. Those issuing from roots of grafted or budded roses should be promptly removed; but those proceeding from own-root roses may remain to bear flowers.

Vigorous.—A term applied to roses that make very strong growth each season.

Weeping Roses.—Roses budded on a tall briar stem and having long drooping shoots. Example: Dorothy Perkins, etc.



THE ROSE GROWER'S CALENDAR.

January.—In the event of severe weather occurring, protect tea and other tender roses growing outdoors. Protection may take the form of drawing mould up round the base of the shoots, or placing bracken fern or litter among and around the branches. Trench and well manure soil intended to be planted with roses in March. Remove pot roses into a temperature of 38 to 40 deg. by night, and 45 to 55 deg. by day, to commence growth, where early flowers are needed. Pot roses not intended to be forced should be kept in a cold greenhouse or in a frame or pit. Remove the loose mould from the surface of those brought in for forcing, and top-dress with a compost of equal parts well-rotted manure and loam, adding a little bone meal to each pot. Syringe the plants morning and afternoon. Prune away the soft unripened tips of the shoots of *Maréchal Niel* and other climbers. Procure and plant briars for budding in July as Standards. Grafting may now commence. Spray with sulphate of copper solution to destroy fungoid enemies.

February.—Prune pot roses in cold frames or greenhouses. In each case cut the shoots back to plump dormant buds. It is better to be content with one or two good shoots than a number of weakly ones. Top-dress as advised last month. Whenever the weather is mild give air to roses started to be forced last month, but always avoid cold draughts. Syringe the plants twice daily, and keep a sharp look-out for mildew, thrips, and red spider. The temperature for those started last month may be increased to 55 deg. by night, and 65 to 70 deg. by day. The *Maréchal Niel* and other climbers will be starting growth, and hence require careful attention. Syringe the shoots morning and evening. If any trace of mildew be visible, paint the hotwater pipes with a mixture of sulphur and skim milk, or sprinkle the foliage freely with sulphur. The manure placed on rose beds in autumn may be forked in now, and the special formula recommended in the

chapter dealing with manures applied. In the south, where roses are grown on warm walls, pruning may commence, doing the most forward ones first. Grafting indoors may still be done.

March.—Now is the time to plant roses where this could not be done in November. Prune away injured portions of roots before planting; this advice applies to all kinds of roses. Plant firmly, and mulch the surface heavily with decayed manure. Should the weather be dry, give the soil a good watering. Pruning of the Hybrid Perpetuals and other kinds of roses, except Teas, Chinas, Hybrid Teas, and tender sorts generally, should be done at the end of the month. If the weather be frosty, defer the pruning till it be more genial. Do not be in a hurry to remove the protection from the Teas; the end of the month will be soon enough to do this. Top-dress beds with artificial or well-rotted manure, where not already done as in January notes. Roses under glass will need careful attention as regards ventilation, and keeping free from insect pests and mildew. Too high a temperature and too little air will make the shoots soft and tender, and easily susceptible to injury. When the sun is shining stop the fire, and ventilate carefully, closing again early in the afternoon, and syringing the foliage well with tepid water. Prune the last batch of pot plants, and top-dress them as already advised. Sow the seeds of wild roses for stocks. Look out for caterpillars, and spray with arsenate of lead wash.

April.—Remove the protection from the Teas unless the weather be frosty, and prune them, also the Hybrid Teas, and Chinas. Plants put in last month should be well looked after as regards moisture at the roots. Examine plants budded last summer to see if grubs are attacking the buds. Where liquid manure is available this may be given freely to established plants. Those planted last autumn, or in March, should not be given any. Stir the surface frequently of established beds by means of a light three-pronged hoe. Climbers on walls making free growth are sometimes likely to be crippled by cold winds. To protect the plants hang a double thickness of fish netting over them till the cold winds have ceased. The pot roses started in January will now be in full bloom. Give them weak doses of liquid manure once a week. Syringing must be discontinued in the case of

plants in flower. Roses growing near the glass and opening their buds ought to be shaded from very bright sunshine, otherwise the blooms will be scalded. Give plenty of air and less artificial heat during the day. Those growing in cold houses should be syringed morning and evening, and be fed once a week with artificial or liquid manure. From now onwards to August give copious supplies of water weekly to roses grown against walls.

May.—This is a busy month among outdoor roses. Insects will begin to make themselves troublesome, and will require constant care and vigilance to prevent becoming numerous and doing harm to the leaves and buds. The chapter dealing with the various pests will give the reader full details as to the kinds and the best ways of coping with them. Disbudding is an operation that needs attention this month. Go over each plant and rub off all weakly growths, leaving the strongest and best only. Weak shoots only form an attraction for pests. Where fine blooms are required the buds, too, should be thinned out. Remove all suckers. Established plants will be benefited by occasional applications of liquid manure, but this should be given only when the soil is moist. The *Maréchal Niel* will be blooming freely under glass where artificial heat is employed, and buds will be showing well on plants in cold houses. Directly the plants cease flowering, cut the flowering shoots back to within a couple of inches or so of the old wood. Do not do this all at once, but, tentatively, as each shoot ceases to put forth flowers. Shoots of last year's growth that have not borne blossoms should be treated the same. The object of pruning thus is to encourage the tree to put forth vigorous young shoots during the summer to flower next year. Pot roses that were forced and have ceased to flower should be gradually hardened off, preparatory to being placed outdoors to ripen their wood. Pay attention to ventilation, syringing, and feeding of later flowering pot roses as advised last month. Spray trees with a fungicide as a preventive of mildew and other fungoid diseases.

June.—Keep a sharp look out for insects and mildew on outdoor roses. Neglect to attend to these matters will mean deformed flowers and unhealthy growth. Suckers must be promptly removed. Disbudding of weak shoots and of small deformed buds should be continued. Stir the surface of the soil around the plants and give liquid manure. If the

weather be dry, give the soil a soaking with water first then the liquid manure. Fine blooms required for exhibition or for other purposes will need to be shaded from the sun. Prune *Maréchal Niel* roses grown under glass in the manner advised in last month's notes. Turn outdoors plants in pots that have flowered, plunging the pots to their rims in cinder ashes or in the garden. In the latter case place a tile or slate under each pot to exclude worms. Any weak shoots on the plants may be cut away to admit light and air to the stronger ones. While outdoors the plants must be well watered and fed.

July.—Summer pruning of climbers may be done now. In each case this must only be carried out after the plants have flowered. The *Banksian* roses especially require careful summer pruning. Cut out all rank sappy shoots of this year's growth without any hesitation. Sturdy, firm shoots of this year's growth may be retained if there be room for them; if not then cut them out. Do not interfere with the older shoots unless in a sickly condition. In the case of other climbers like *W. A. Richardson*, *Boursault*, *Evergreen*, *Ayrshire*, and, in fact, any strong growing climbers, thin out the shoots that have borne blossoms, and tie or nail in those of this year's growth to take their place. Budding generally may be undertaken this month. Look keenly after pests of all kinds. Attend to the surface tillage of the beds, and to watering. No further feeding will be needed. Turn out the last of the pot roses and plunge them as advised last month. In very hot weather pot roses will be benefited by a thorough syringing each evening. The *Maréchal Niels* under glass that were pruned as advised, will be making new growth. Thin out the young shoots if likely to be very crowded.

August.—Beyond continuing any budding, and waging perpetual warfare against pests of all kinds, also removing suckers from the roots of worked roses, there is little to be done. Cuttings may be put in in cold frames, and layering done where roses are desired to be increased by this means. Repot all kinds of pot roses.

September.—Budding may still be done, provided the bark will run freely. Cuttings, too, may be put in a shady border, in pots, or in a cold frame. See that climbing roses under glass have plenty of air, and that mildew and insects are not allowed to infest the foliage.

October.—The soil intended for planting with roses next month should be prepared during the month. Full instructions on this subject will be found in a special chapter elsewhere. Cuttings of all kinds of roses may be put in outdoors. So, too, may those of manetti and briars to form stocks for future budding and grafting. Roses may likewise be transplanted towards the end of the month. The very long shoots of dwarf and standard roses may be shortened about a third to prevent them being injured by the autumnal gales. The portions removed may be utilised for cuttings. Now is a good time to plant the *Maréchal Niel* and other climbing roses under glass. Loosen the ligatures of roses budded in July. Send for rose lists and make your selection. The earlier your order goes in to the nurseryman the better, as then you are more likely to get good plants. Roses intended for pot culture may be lifted from the open ground and potted, but such roses are not suitable for forcing until a year afterwards.

November.—This is the best month in the year to plant all kinds of roses, and all who wish to succeed in growing them really well should make a point of planting at once. See the chapter on planting for details. Stocks, too, should be planted this month. Gather the heaps of wild roses and bury them in sand till spring, then sow as advised in the chapter devoted to propagation. Remove pot roses into cold frames or pits, or, failing this, into a sheltered corner outdoors, packing the pots well round with dry litter to protect them from frost. Keep the roots well on the dry side. Give plenty of air to climbers under glass to ripen their growth.

December.—Finish planting roses. Procure and plant briar stocks. Prune pot-roses intended to be placed in heat next month. Climbers under glass should not be watered too freely. Avoid too much heat. Tea roses will need to be protected from injury by frost. In the case of dwarf roses draw the soil well up around the base of the shoots, and either place some bracken, fern, or branches of evergreen shrubs among the shoots. Standards should have a wisp of hay or straw, secured by twine, bound around the base of the shoots at their junction with the stem.

A

LIST OF CULTIVATED ROSES.

THE following list contains as far as possible the names of such old and modern varieties as are worthy of cultivation for all purposes in British gardens. In former issues of this work the varieties were arranged in a continuous alphabetical list which contained very many that had gone out of cultivation since we first compiled it. Having, therefore, to revise the list, we deemed it to be more useful to rearrange the varieties in their several sections, so that readers in search of any particular kind belonging to any one section could find it more readily than is possible in scanning through a continuous list. The varieties are now arranged under the following heads:—

ALBA, AUSTRIAN BRIAR, AUSTRIAN HYBRID, AYRSHIRE, BANKSIA, BOURBON, BOURSALT, CHINA, DAMASK, EVERGREEN, HYBRID CHINA, HYBRID PERPETUAL,	HYBRID SWEET BRIAR, HYBRID TEA, MOSS, MULTIFLORA, MUSK, NOISSETTE, POLYANTHA, PROVENCE, RUGOSA, TEA-SCENTED, WICHURAIANA, WICHURAIANA-TEA,
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And Species with their Varieties or Hybrids.

An explanation of these various sections is given in the forepart of this volume, under the heading of "Types of Roses."

As will be seen by reference to the list we have, in addition to the name of each variety, given the year when it was first introduced; its colour; habit of growth; its particular adaptability for culture; the mode of pruning best suited to its requirements; with a brief intimation as to whether it possesses fragrance, or is single or semi-double flowered, and so on. The time to prune the various types is given in the chapter on pruning. In the column devoted to mode of culture we have had to abbreviate some of the words. Thus. Pil. signifies pillar; Per., pergola; Std., standard; Dwf., dwarf; and Ex. or Exhib., exhibition.



DWARF POLYANTHA ROSE, "BABY ELEGANCE."

A dwarf single-flowered salmon-coloured rose, suitable for small beds or edgings to large beds.



A.G. 233

THREE WELL ARRANGED LADIES' SPRAYS OF ROSES.

The blooms are arranged with their own foliage, and the sprays secured the First Prize at the National Rose Society's Exhibition in 1914.

Roses and their Cultivation.

ALBA.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Celestial Meiden's Blush	— 1797	Light blush Blush; semi-double	Vigorous Vigorous	Dwarf, bush Dwarf, bush	Little Little	Summer-flowering Summer-flowering, frag.

AUSTRIAN BRIAR.

Austrian Bicolor	—	Yellow and red	Vigorous	Dwf., bush, hedge	Very little	Single-flowered
Austrian Copper	1596	Reddish-orange	Vigorous	Dwf., bush, hedge	Very little	Single-flowered
Austrian Yellow	1596	Yellow	Vigorous	Dwf., bush, hedge	Very little	Single-flowered
Harrisonii	1830	Golden-yellow	Vigorous	Dwf., bush, hedge	Very little	Semi-double
Persian Yellow	1838	Deep, golden-yellow	Vigorous	Dwf., bush, hedge	Very little	Double
Sonnlicht	1914	Canary-yellow	Vigorous	Dwf., bush, hedge	Very little	Semi-double, fragrant

AUSTRIAN HYBRID (PERNETTIANA.)

Arthur R. Goodwin	1910	Orange-red, salmon-pink	Moderate	Dwf., beds, stand.	Moderate	A charming rose
Beauté de Lyon	1910	Strawberry-rose and fawn	Vigorous	Dwarf, standard	Moderate	Sky bloomer
Christine	1916	Deep golden-yellow	Vigorous	Dwarf, beds	Moderate	Pretty, Gold Medal
Cissie Easlea	1913	Saffron-yellow	Vigorous	Dwarf, bush	Moderate	Large-flowered
Constance	1915	Orange-yellow and crimson	Vigorous	Dwarf, bush	Moderate	Long buds
Deutschland	—	Yellow, rose and orange	Moderate	Dwarf, bush	Moderate	Pretty colour
Entente Cordiale	1908	Red, yellow and salmon	Vigorous	Dwarf, bush	Moderate	Semi-double
Gottfried Keller	1902	Apricot-yellow	Vigorous	Dwf., bush, stand.	Moderate	Semi-single, fragrant
Juliet	1910	Old gold, rose, yellow	Vigorous	Dwarf, standard	Moderate	Fragrant, lovely colour
J. F. Barry	1914	Canary-yellow	Moderate	Dwarf, beds	Moderate	Very fragrant
Les Rosati	—	Carmine, cerise, yellow	Vigorous	Dwarf, bush	Moderate	Semi-double

Austrian Hybrid (Pernetiana)—*continued*.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Louis Barbier	—	Coppery-red, rose, purple	Vigorous	Dwarf, bush	Moderate	Semi-double
Louise Catherine Breslau	1912	Coral-red, pink and orange	Vigorous	Dwarf, bush	Moderate	Exquisite colour
Lyons Rose	1907	Coral-red, pink, yellow	Moderate	Dwf., beds, stand.	Moderate	Fragrant
Madame Edouard Herriot	1913	Coral-red and yellow	Vigorous	Dwarf, bush	Moderate	Semi-double, Gold Medal
Mrs. Wemys Quinn	1914	Lemon and madder-orange	Vigorous	Dwarf, beds	Moderate	Very fragrant
Muriel Dickson	1915	Red and coppery	Vigorous	Dwarf, beds	Moderate	Gold Medal
Naiad	1915	Fawn, pink and white	Very vig.	Bush, pillar	Little	Semi-double
Rayon d'Or	1910	Very deep yellow	Vigorous	Dwf., bush, stand.	Moderate	Gold Medal rose
Soleil d'Angers	1909	Yellow and vermilion	Vigorous	Lwarf, bush	Moderate	Very attractive
Soleil d'Or	1900	Orange and crimson	Vigorous	Dwarf, bush	Moderate	Fragrant
Viscountess Enfield	1910	Coppery old rose	Moderate	Dwf., beds, pots	Moderate	Semi-double
Willowmere	1913	Peach-pink	Moderate	Dwarf, bush	Moderate	A lovely colour

AYRSHIRE.

Alice Gray	—	White and pink	Climber	Arch or pergola	Very little	Summer-flowering
Bennett's Seedling	1840	Pure white	Climber	Arch, wall, pergola.	Very little	Summer-flowering
Dundee Rambler	—	White and pink	Climber	Arch, pergola, etc.	Very little	Good town rose, summer
Splendens	—	White and flesh	Climber	Arch, pil., pergola	Very little	Myrrh-scented
Williams's Evergreen	1850	Creamy-white	Climber	Arch, pil., pergola	Very little	Evergreen foliage

BANKSIA.

Banksia alba	1807	White	Climber	S. or W. wall	Very little	Summer-flowering, frag.
Banksia lutea	1824	Yellow	Climber	S. or W. wall	Very little	Summer-flowering

Roses and their Cultivation.

BOURBON.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Acidale	1838	White	Very vig.	Pllr. W. or S. wall	Moderate	Large-flowered
Armosa (Hermosa)	1840	Pale pink	Vigorous	Dwarf, beds	Little	Continuous bloomer
Glorie de Rosamanes	1825	Light crimson	Vigorous	Bush or pillar	Moderate	Semi-double, hybrid
Madame Isaac Pereire	1880	Rose-carmine	Vigorous	Bush or pillar	Little	Good town rose, fragrant
Mrs. Allen Chandler	—	Pure white	Vigorous	Standard	Little	Good town rose
Mrs. Paul	1891	Blush-white and peach	Vigorous	Bush or pillar	Little	Good town rose
Purity	1898	Pure white	Climber	Pillar	Little	Free blooming
Seagull	1907	White	Climber	Pillar or arch	Little	Single-flowered
Souvenir de la Malmaison	1843	Blush-white	Vigorous	Dwarf or pillar	Little	Autumn rose, fragrant
Do. Climbing	1893	Blush-white	Climber	S. wall	Little	Fragrant
Zephirine Drouhin	1873	Carmine-pink	Climber	Pillar or W. wall	Little	Deliciously fragrant

BOURSAULT.

Alpina flore pleno	1753	Deep rose	Vigorous	Bush	Very little	Summer-flowering
Gracilis	—	Rosy-red	Climber	Arch or pergola	Very little	Good town rose
Inermis Morlettii	1883	Light rosy-pink	Vigorous	Bush or pillar	Very little	Good town rose
Old Blush Boursault	—	Blush	Vigorous	Bush or pillar	Very little	Semi-double

CHINA OR MONTHLY.

Arethusa	1903	Yellow and apricot	Moderate	Dwarf, beds	Very little	Free flowering
Aurore	1899	Orange-yellow and fawn	Moderate	Dwarf, beds	Very little	Pretty in bud
Common or Monthly	1796	China pink	Vigorous	Dwarf, bush	Very little	Continuous flowering

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Comtesse du Cayla	1902	Coppery-yellow and carmine	Moderate	Dwarf, beds	Very little	Very pretty colour
Cramoisie Supérieure	1834	Crimson	Moderate	Dwarf, beds	Very little	Free flowering
Do. Climbing	—	Crimson	Climber	Pillar or S. wall	Very little	Free flowering
Ducher	1869	White	Vigorous	Dwarf, beds	Very little	The best white china
Duke of York	1894	Rosy-pink and white	Moderate	Dwarf, beds	Very little	Variable in colour
Fabvier	1832	Crimson and white	Moderate	Dwarf, beds	Very little	The best crimson china
Feurzauber	1914	Velvety-red	Vigorous	Dwarf, beds	Very little	Fragrant
Field Marshal	1903	Velvety-crimson	Vigorous	Dwarf, beds	Very little	Attractive
Hofgartner Kalb	1914	Carmine-rose, yellow and red	Vigorous	Bush	Very little	Continuous bloomer
Irene Watts	1896	White and salmon-pink	Moderate	Dwarf, beds	Very little	Very pretty
Le Vesuve	1904	Rich crimson	Moderate	Dwarf, beds	Very little	Continuous flowering
Laurette Messimy	1887	Rose and yellow	Vigorous	Dwarf, standard	Very little	Good bedding rose
Leuchfleur	1910	Bright red	Vigorous	Bush	Very little	Fragrant
Louis Phillipe	1843	Deep crimson	Moderate	Dwarf, beds	Very little	Fragrant
Madame Eugène Resal	1895	Coppery-rose and orange	Vigorous	Bush	Very little	Very floriferous
Mdlle. de la Vallée	1910	Coppery-red and yellow	Vigorous	Dwarf, beds	Very little	Very free blooming
Mrs. Bosanquet	1832	Flesh-white	Vigorous	Bush or standard	Very little	Fragrant
Mrs. Edward Clayton	1910	Golden yell. and carmine-red	Vigorous	Bush	Very little	Very fragrant
Old Blush or Monthly	1796	Blush	Vigorous	Bush	Very little	Long buds, free flowering
Old Crimson	1810	Velvety-crimson	Moderate	Bush, S. wall	Very little	A beautiful old rose
Papa Hemerary	1913	Vermilion, red and white	Very vig.	Dwarf or edging	Very little	A fine old rose
Queen Mab	1896	Rose, apricot and orange	Moderate	Bush	Very little	Single-flowered
Red Pet	1888	Dark crimson	Moderate	Dwarf, beds	Very little	Very pretty
Viridiflora	—	Green	Vigorous	Dwarf or bush	Very little	Small flowerer
White Pet	1879	Creamy-white	Vigorous	Bush	Very little	The Green Rose
						Cluster-flowering

Roses and their Cultivation.

DAMASK.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Commandant Beurepaire	1875	Rose, violet and white	Vigorous	Bush	Light	A variable rose
Crimson Damask	1901	Bright crimson	Vigorous	Bush	Light	Semi-single
La Ville de Bruxelles	1836	Rose and blush	Vigorous	Bush	Light	Large, flat blooms
Lady Curzon	1902	Pale pink	Vigorous	Pillar or bush	Light	Single-flowered, early
Lady Sarah Wilson	1902	Creamy-blush	Vigorous	Pillar or bush	Light	Semi-double
Lady White	1902	White and pink	Vigorous	Bush	Light	Semi-double
Madame Hardy	1832	Pure white	Vigorous	Bush	Light	Very fragrant
Mrs. O. G. Orpen	1906	Pale rosy-pink	Semi-clim	Pillar or bush	Light	Single-flowerer
Old Red Damask	—	Red	Vigorous	Bush	Light	Very fragrant
York and Lancaster	—	Pale rose or white, striped	Vigorous	Bush	Light	Fragrant

EVERGREEN.

Félicité-et-Perpétue Flora	1828	Creamy-white	Climber	Arch, perg, N. wall	Very little	Cluster-flowering, early
Leopoldine de Orleans	1888	Bright rose	Climber	Arch, pergola	Very little	Summer-flowering
Myriantes Renoncule	—	White and rose	Climber	Arch or pergola	Very little	Summer-flowering
Princess Marie	—	Blush-rose	Climber	Arch, arbour, etc.	Very little	Summer-flowering
	1829	Pink	Climber	Arch or pergola	Very little	Summer-flowering

HYBRID CHINA.

Blairii, No. 2	1845	Blush and rose	Climber	Pillar, arch, perg.	Little	Early-flowering
Fulgens	—	Deep crimson	Vigorous	S. Wall	Light	Early-flowering
Madame Plantier	1835	Pure white	Vigorous	Bush	Light	Summer-flowering
The Garland	—	Blush to white	Climber	Arch or pergola	Light	A fine showy climber

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Abel Carrière	1875	Crimson, maroon, and pur.	Vigorous	Dwf., st., ex.	Moderate	Large and full blooms
Alfred Colomb	1865	Bright red	Vigorous	Dwf., st., ex.	Moderate	Large, perfect bloom
Alfred K. Williams	1877	Crimson	Moderate	Exhibition	Moderate	Fragrant
American Beauty	1885	Deep rose	Vigorous	Dwarf	Light	Very fragrant
Annie Crawford	1914	Bright pink	Vigorous	Dwf., exhib.	Hard	Gold Medal rose
Ards Rover	1894	Crimson	Very vig.	Pillar, N. wall	Little	Showy climber
Auguste Rigotard	1871	Cherry-red	Vigorous	Dwf., exhib.	Moderate	Best in autumn
Barbarossa	1907	Pure carmine	Vigorous	Dwarf	Moderate	Good garden rose
Baroness Rothschild	1867	Light pink	Vigorous	Dwf. or standard	Moderate	Lovely garden rose
Beauty of Waltham	1862	Cherry-crimson	Vigorous	Dwf., st., exhib.	Moderate	Perfect form; full
Ben Cant	1902	Deep crimson	Vigorous	Dwf., st., exhib.	Moderate	Gold Medal rose
Black Prince	1880	Blackish crimson	Vigorous	Dwarf, exhib.	Hard	Good dark rose
Camille Bernardin	1865	Bright crimson	Very vig	Dwf., st., bed	Moderate	Fragrant
Candeur Lyonnaise	1914	Pure white	Vigorous	Dwf., bed	Moderate	Large, long buds
Captain Hayward	1893	Scarlet crimson	Vigorous	Dwf., st., exhib.	Moderate	Fragrant
Do. Climbing	1893	Scarlet crimson	Climber	Pillar or arch	Little	Fragrant
Charles Darwin	1879	Crimson	Vigorous	Dwf., st., bed	Moderate	Very fragrant
Charles Lamb	1884	Clear light red	Vigorous	Dwarf	Moderate	A charming rose
Charles Lefebvre	1861	Rich crimson	Vigorous	Dwf., st., exhib.	Moderate	Very fragrant
Do. Climbing	1878	Crimson	Climber	Pillar or arch	Little	Very fragrant
Clio	1894	Flesh and rosy-pink	Vigorous	Dwf., st., exhib.	Light	Large, free-bloomer
Countess of Rosebery	1879	Reddish-salmon rose	Vigorous	Dwf., st., bed	Light	Large, fragrant
Commandant Félix Faure	1902	Lake and crimson	Vigorous	Dwf., st., exhib.	Light	Very fragrant
Comtesse de Ludre	1879	Cherry-crimson	Moderate	Dwf., bed	Moderate	Very fragrant
Commander Jules Gravereaux	1909	Crimson	Vigorous	Dwf., bed	Moderate	Very showy

Roses and their Cultivation.

Hybrid Perpetual—continued.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Comte de Raimbaud	1867	Crimson	Vigorous	Dwf., st., exhib.	Moderate	Fragrant
Coronation	1913	Flesh to pink	Very vig	Dwrf., st., bed	Moderate	Gold Medal rose
Crown Prince	1880	Deep crimson	Vigorous	Dwf., st., exhib.	Moderate	Free-flowering
Dr. Andry	1864	Bright crimson	Vigorous	Standard, exhib.	Moderate	Fragrant
Dr. W. Gordon	1905	Satin-pink	Vigorous	Dwf., st., exhib.	Moderate	High-centred rose
Duchesse de Morny	1863	Bright rose	Vigorous	Dwf., exhibition	Moderate	Beautiful shape
Duke of Edinburgh	1868	Scarlet-crimson	Vigorous	Dwf., st., peg.	Moderate	Fragrant
Duchess of Bedford	1879	Crimson and scarlet	Moderate	Dwf., bed	Moderate	Fragrant
Duke of Teck	1880	Crimson-scarlet	Vigorous	Dwf., st., exhib.	Moderate	Large, full, fragrant
Duke of Connaught	1876	Velvety-crimson	Moderate	Dwf., st., bed	Moderate	Very fragrant
Duke of Wellington	1864	Dark crimson	Vigorous	Dwf., st., exhib.	Moderate	Fragrant
Dupuy Jamain	1868	Bright cerise	Vigorous	Dwf., exhib.	Moderate	Very fragrant
Earl of Dufferin	1887	Velvety-crimson	Vigorous	Dwf., exhib.	Moderate	Very large, full flowers
Eugene Fürst	1875	Velvety-crimson	Vigorous	Dwf. or stand.	Moderate	Fragrant
Ellen Drew	1896	Light silvery-pink	Vigorous	Dwf., st., bed	Moderate	Good autumn rose
Exposition de Brie	1865	Crimson	Vigorous	Dwf., exhib.	Moderate	Large, full, and perfect
Etienne Levet	1871	Carmine-red	Robust	Dwf., bed, ex.	Moderate	Very fragrant
E. V. Teas	1874	Bright red	Moderate	Dwf., exhib.	Hard	Very fragrant
Fisher Holmes	1865	Crimson-scarlet	Vigorous	Stand., dwf.	Moderate	Very fragrant
François Michelon	1871	Deep rose and silvery	Vigorous	Exhibition	Hard	Very large and full
Frau Karl Druschki	1901	Pure white	Vigorous	Dwf., st., ex.	Light	Large and high-centred
Do. Climbing	1906	White	Climber	Pillars, arches	Little	Variable, uncertain
Général Jacqueminot	1853	Scarlet-crimson	Vigorous	Dwf., st., pot	Moderate	Very fragrant
Geoffrey Henslow	1912	Crimson and scarlet	Vigorous	Dwf., exhib.	Moderate	Fragrant
George Arends	1910	Rose	Vigorous	Dwarf	Moderate	Very fragrant
Gloire de Chédane.						
Guinoisseau	1908	Crimson	Vigorous	Dwf., st., exhib.	Light	Large, high centre

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Gloire de Margottin	1887	Bright red	Semi-clim	Pillar	Little	Long, pointed buds
Gustave Piganeau	1889	Carmine-lake	Moderate	Dwarf, exhib.	Hard	Very fragrant
Heinrich Schultheis	1882	Pinkish-rose	Vigorous	Dwf., st., bed	Moderate	Large blooms
Helen Keller	1895	Rosy-cerise	Moderate	Dwarf, exhib.	Hard	Gold Medal, fragrant
Her Majesty	1885	Satin-rose	Vigorous	Dwf., st., exhib.	Hard	Gold Medal rose
Horace Vernet	1866	Scarlet-crimson	Moderate	Dwf., exhib.	Light	Fragrant
Hugh Dickson	1904	Crimson and scarlet	Vigorous	Dwf., st., exhib.	Moderate	Gold Medal, fragrant
Hugh Watson	1904	Crimson and carmine	Vigorous	Dwarf, exhib.	Moderate	Large, fragrant
Jeannette Dickson	1890	Rosy and silvery-pink	Vigorous	Dwarf, exhib.	Moderate	Large, high centre
John Hopper	1863	Bright rose	Very vig	Dwf., st., bed	Light	Fragrant, free blooming
John Stuart Mill	1875	Clear red	Vigorous	Dwf., st., exhib.	Moderate	Good late rose, fragrant
Lady Helen Stewart	1887	Crimson-scarlet	Vigorous	Dwf., st., bed	Moderate	Very fragrant
Lady Sheffield	1881	Rosy-cerise	Vigorous	Dwf., st., bed	Moderate	Good autumn rose
Louis Ricard	1902	Crimson and vermillion	Vigorous	Dwarf	Moderate	Good dark rose
Louis van Houtte	1869	Red and crimson	Robust	Dwf., bed, exhib	Moderate	Very fragrant
Madame Eugène Verdier	1878	Silvery-rose	Vigorous	Dwarf, exhib.	Moderate	Very large blooms
Madame Gabriel Luizet	1877	Silvery-pink	Vigorous	Dwf., st., exhib.	Light	Perfect-shaped blooms
Madame Haussmann	1863	Bright crimson	Vigorous	Dwf., exhib.	Moderate	Large blooms
Maharajah	1904	Dark crimson	Vigorous	Dwf., bed	Little	Single-flowered
Madame Victor Verdier	1863	Light crimson	Vigorous	Stand., exhib.	Light	Frag., good in autumn
Magna Charta	1876	Bright rose	Very vig.	Dwf., bed, pot	Light	Very large flowers
Marchioness of Downshire	1894	Satin pink and rose	Vigorous	Dwarf, exhib.	Hard	Gold Medal rose
Marchioness of Dufferin	1891	Rosy-pink	Moderate	Dwarf, exhib.	Hard	Gold Medal rose
Marchioness of Londonderry	1893	Ivory-white	Moderate	Dwarf, exhib.	Hard	Gold Medal rose
Margaret Dickson	1891	Ivory-white and blush	Vigorous	Dwarf, st., ex.	Light	Gold Medal rose
Marie Baumann	1863	Bright red	Vigorous	Dwarf, st., ex.	Moderate	Very fragrant

Roses and their Cultivation.

Hybrid Perpetual—continued.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Marie Verdier	1877	Silvery rose	Moderate	Dwarf, exhib.	Hard	Exhibitor's rose only
Mavourneen	1893	White and rose	Very vig	Pillar	Light	Free-flowering
Merveille de Lyon	1882	White, tinted pink	Vigorous	Dwarf	Moderate	Large, cupped blooms
M. H. Walsh	1905	Crimson, suffused scarlet	Vigorous	Dwarf or stand.	Moderate	Good autumn rose, frag.
Mrs. A. M. Kirker	1906	Bright carise	Vigorous	Dwf., exhib.	Moderate	Large, fragrant
Mrs. Cocker	1899	Soft pink	Vigorous	Stand., dwf., ex.	Moderate	Perfect shape
Mrs. Frank Cant	1897	Pink and silvery-white	Moderate	Dwarf, exhib.	Moderate	A good rose
Mr. George Dickson	1885	Satiny-pink	Vigorous	Dwarf	Light	Good autumn rose
Mrs. Harkness	—	Blush	Vigorous	Dwarf, bed	Moderate	Very fragrant
Mrs. John Laing	1887	Rosy-pink	Vigorous	Dwarf, standard	Moderate	Gold Medal rose, frag.
Mrs. R. G. S. Crawford	1894	Rosy-pink, flesh, and white	Vigorous	Dwf., st., ex.	Moderate	Gold Medal rose
Muriel	1902	Salmon-pink	Moderate	Dwarf, exhib.	Moderate	Large, full, and perfect
Oscar Cordel	1897	Bright carmine	Vigorous	Dwarf	Moderate	Fragrant
Paula Clegg	1913	Brilliant red	Vigorous	Dwf., st., bed	Moderate	Gold Medal rose
Paul Neyron	1869	Bright rose	Vigorous	Dwarf or bush	Moderate	Large rose, fragrant
Paul's Royal Scarlet	1898	Vivid scarlet	Moderate	Bush	Moderate	Single-flowered
Paul's Single White	1883	White	Climber	Pillar, arch, etc.	Little	Single-flowered
Pride of Waltham	1881	White	Moderate	Dwarf, exhib.	Moderate	Large and full
Prince Arthur	1875	Salmon-pink	Moderate	Dwarf, exhib.	Moderate	Very fragrant
Prince Camille de Rohan	1861	Crimson	Vigorous	Dwarf or stand.	Moderate	Frag., good town rose
Rev. Alan Cheales	1897	Deep velvety-crimson	Vigorous	Dwf., st., exhib.	Moderate	A showy rose
Reynolds Hole	1872	Lake and silvery-white	Vigorous	Dwarf, exhib.	Hard	Large, full, globular
Rouge Angevine	1908	Maroon and scarlet	Vigorous	Dwarf, exhib.	Moderate	Good garden rose
Salamander	1891	Scarlet	Vigorous	Dwarf	Hard	Gold Medal rose
Senateur Vaisse	1859	Scarlet-crimson	Vigorous	Dwarf, exhib.	Hard	Fragrant, good autumn
Sir Rowland Hill	1888	Bright crimson	Vigorous	Dwarf or stand.	Moderate	Good dark rose
Snow Queen	1900	Port wine colour	Vigorous	Dwf., st., bed	Moderate	Long buds, free-bloomer
		Pure snow-white	Vigorous	Dwf., stand, beds	Hard	

Variety.	When introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Sultan of Zanzibar	1876	Blackish maroon	Moderate	Dwarf, exhib.	Hard	Difficult to grow
Suzanne Marie	1883	Rosy-pink and red	Vigorous	Dwarf, st., ex.	Moderate	Brilliant colour
Rodocanachi	1900	Satin rose	Climber	Pillar or arch	Little	Very fragrant
Do. Climbing	1909	Carmine-crimson	Vigorous	Dwf., stand.	Moderate	Very large blooms
Symmetry	1896	Cherry-red and crimson	Vigorous	Dwarf, exhib.	Moderate	Good in autumn
Tom Wood	1881	Cherry-red	Vigorous	Dwarf, stand.	Light	Fragrant
Ulrich Brunner	1889	Bright salmon	Moderate	Dwarf, exhib.	Hard	Fragrant
Ulster	1906	Cherry-crimson	Moderate	Dwarf, exhib.	Hard	Very large flower
Urana	1884	Crimson-scarlet	Moderate	Dwf., stand., ex.	Hard	Fragrant
Victor Hugo	1864	Dark velvety-crimson	Vigorous	Dwarf, exhib.	Hard	Large, very fragrant
Xavier Olibo						

HYBRID SWEET BRIAR.

Amy Robsart	1894	Deep rose	Vigorous	Bush, hedge	Little	Free-flowering
Anne of Gierstein	1894	Crimson-rose	Very vig	Bush, hedge	Little	Very free
Brenda	1894	Blush or peach	Vigorous	Bush, hedge	Little	Golden anthers
Catherine Seyton	1895	Rosy-pink	Vigorous	Bush, hedge	Little	Perpetual-flowering
Edith Bellenden	1895	Pale pink	Vigorous	Bush, hedge	Little	Very free-flowering
Flora McIvor	1894	White and rose	Vigorous	Bush, hedge	Little	Good for cutting
Green Mantle	1895	Pink and white	Vigorous	Bush, hedge	Little	Good in autumn
Jeannie Deane	1895	Scarlet-crimson	Very vig.	Bush, hedge	Little	Semi-double
Julia Mannering	1895	Pearl-pink	Vigorous	Bush, hedge	Little	Perpetual-flowering
Lady Penzance	1894	Copper and yellow	Very vig.	Bush, hedge	Little	Novel in colour
Lord Penzance	1894	Fawn and yellow	Vigorous	Bush, hedge	Little	Pretty
Lucy Ashton	1894	White and pink	Vigorous	Bush, hedge	Little	Small flowers
Lucy Bertram	1895	Crimson and white	Very vig.	Bush, hedge	Little	Perpetual-flowering
Meg Merrilies	1894	Rich crimson	Very vig.	Bush, hedge	Little	Free-flowering
Rose Bradwardine	1894	Clear rose	Vigorous	Bush, hedge	Little	Pretty shape
Una	1900	Pale cream	Climber	Pillar or arch	Little	Semi-single

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Ada Paullin	1916	Apricot and bronzy-yellow	Very vig.	Gdn., std. or dwf.	Moderate	Long pointed buds
Admiral Dewey	1899	Light blush	Vigorous	Dwf., stand., beds	Moderate	Fragrant, large
Admiral Ward	1915	Crimson, red and purple	Vigorous	Dwarf, beds	Moderate	Large flowers
Aimée Cochet	1902	Flesh-pink	Vigorous	Dwarf, exhibition	Hard	Exhibition variety
Aladdin	1916	Orange-yellow	Vigorous	Dwarf, beds	Moderate	Very fragrant
Albatross	1908	White	Robust	Dwarf, exhibition	Moderate	Very large blooms
Alice Cory Wright	1910	Deep pink	Robust	Dwarf, exhibition	Light	Large and full
Alice Grahame	1903	Ivory-white and salmon	Moderate	Dwarf, beds	Moderate	Variable in colour
Alice Lemon	1911	Blush-white and pink	Vigorous	Dwarf, exhibition	Moderate	Large, full, pointed
Alice Lindsell	1902	Creamy-white	Vigorous	Dwf., stand., ex	Hard	Gold Medal rose
Alice Roosevelt	1902	Carmine-rose and salmon	Vigorous	Dwf., stand., beds	Moderate	A charming rose
Amateur Teyssier	1900	White and yellow	Moderate	Dwarf, beds, pots	Moderate	Good button-hole rose
Andre Gamon	1909	Carmine-rose	Vigorous	Dwf., stand., beds	Moderate	Fragrant, free
Annie Crawford	1915	Rosy-pink	Vigorous	Exhibition	Hard	Very large, Gold Medal
Antoine Rivoire	1896	Rosy-flesh and yellow	Moderate	Dwf., stand., beds	Hard	Good autumn rose
Archie Gray	1916	Cherry-red	Vigorous	Exhibition	Hard	Fragrant, large
Ards Pillar	1902	Velvety crimson	Very vig.	Pillar	Little	Free-flowering
Ards Rambler	1908	Rosy-carmine	Vigorous	Pillar	Little	Fragrant
Auguste Rodrigues	1911	Carmine to red	Vigorous	Dwarf, beds	Moderate	Long buds, floriferous
Augustine Guinoiseau	1889	White and blush	Vigorous	Dwf., stand., beds	Light	Very fragrant
Augustus Hartmann	1914	Red, orange and cerise	Vigorous	Dwarf, beds	Moderate	Gold Medal rose
Autumn Tints	1914	Coppery-red, orange & salmon	Vigorous	Dwarf, beds	Moderate	Mildew-proof
Avoca	1907	Rich crimson	Vigorous	Dwf., st., beds, ex.	Light	Very fragrant, Gold Med.
A. W. Atkinson	1916	Ivory-white	Vyrobust	Exhibition, beds	Moderate	Large and full
Bardou Job	1887	Crimson	Vigorous	Dwf., beds, S. wall	Little	Semi-double
Baron Palm	1914	Red, yellow and vermilion	Vigorous	Dwarf, beds	Moderate	Good for out flowers
Beatrice	1908	Pink and vermilion	Vigorous	Dwarf, beds	Moderate	Blooms on long stems
Bertha Gaulis	1910	China rose	Vigorous	Dwarf, beds	Moderate	Good garden rose

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Bessie Brown	1899	Creamy-white	Moderate	Dwf., stand., ex.	Moderate	Fragrant, Gold Medal
Betty	1905	Coppery-rose and yellow	Vigorous	Dwf., stand., beds	Moderate	Fragrant, Gold Medal
Bianca	1913	Creamy-white and peach	Vigorous	Dwarf, beds	Moderate	Long buds, free
Blush Queen	1916	Clear blush	Vigorous	Dwarf, exhibition	Hard	Broad-petalled
Brilliant	1914	Intense scarlet	Vigorous	Dwf., stand., beds	Moderate	Gold medal rose
British Queen	1912	Creamy-white	Vigorous	Dwf., st., beds, ex.	Moderate	Fragrant, Gold Medal
Camens	1881	Rose and yellow	Vigorous	Dwarf, beds	Light	Very free
Captain Christy	1873	Salmon-pink	Robust	Dwf., stand., beds	Moderate	Early to late flowering
Do. Climbing	1881	Salmon-pink	Climber	Pillar or arch	Little	Continuous bloomer
Cardinal	1905	Cardinal-red	Vigorous	Dwarf, beds	Moderate	Very free-flowering
Carine	1911	Orange-car., buff and salmon	Vigorous	Dwarf, beds	Moderate	Button-hole rose, frag.
Carmine Pillar	1905	Rosy carmine	Climber	Pillar, arch, per.	Little	Fragrant
Caroline Testout	1890	Bright pink	Vigorous	Dwf., st., beds, ex.	Moderate	Good town & pt. ro., frag.
Do. Climbing	1902	Satin-rose	Climber	Pr., arch, E. wall	Little	Free-flowering
Cecilie Custers	1914	Rose and pink	Vigorous	Dwarf, beds	Moderate	Free-flowering
Celia	1906	Satin-pink	Vigorous	Dwarf, beds	Moderate	A useful rose
C. E. Shea	1916	Silvery rose-pink	Vigorous	Exhibition, beds	Moderate	Fragrant, Gold Medal
Charles J. Grahame	1905	Bright crimson	Moderate	Dwf., st., beds, ex.	Hard	Fragrant
Château de Clos Vougeot	1908	Dark crimson and scarlet	Moderate	Dwarf, beds	Hard	Frag., good dark rose
Cheerful	1915	Orange-flame	Vigorous	Dwarf, beds	Moderate	Free, novel colours
Cherry Page	1914	Cerise-pink and yellow	Vigorous	Dwarf, beds	Moderate	Semi-double, pretty
Cherry Ripe	1905	Dull crimson	Vigorous	Dwarf, beds	Moderate	Fragrant
Cheshunt Hybrid	1873	Cherry carmine	Climber	Pillar or S. wall	Little	Very fragrant
Christie Mackellar	1913	Crimson-carmine	Vigorous	Dwarf, beds	Moderate	Semi-double, free
Chrome	1916	Chrome-yellow	Vigorous	Dwf., beds, exhib.	Moderate	Large flatfish flowers
Circe	1916	White, carmine and yellow	Vigorous	Dwf., beds, exhib.	Moderate	Large, full flowers
C. K. Douglas	1916	Crimson-scarlet	Vigorous	Dwf., exhib., beds	Moderate	Promising rose
Clara Watson	1894	White and rosy-peach	Vigorous	Dwf., stand., beds	Moderate	Continuous bloomer

Roses and their Cultivation.

Hybrid Tea—continued.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Clara Watson, Climbing	1894	Cream, flesh, peach	Very vig.	Pillar, arch, etc.	Very little	Free-flowering
Clarice Goodacre	1916	Chrome and ivory-white	Vigorous	Dwf., beds, exhib.	Moderate	Long pointed buds
Claudius	1910	Bright rose	Vigorous	Dwf., st., beds, ex.	Moderate	Fragrant, Gold Med. rose
Cleveland	1916	Coppery-yellow, old rose	Vigorous	Dwarf, beds	Moderate	Well-formed, full
Climbing Chatenay	1916	Salmon-pink	Very vig.	Pillar or wall	Moderate	A charming rose
Clytemnestra	1914	White	Very vig.	Semi-climber	Light	Twisted petals
Colcestria	1916	Satin-rose and pink	Very vig.	Wall or pillar	Moderate	Very fragrant
Colleen	1914	Rose to rose-pink	Vigorous	Dwarf, exhibition	Hard	Gold Medal rose, fragrant
Colonel Gruan	1912	Red to pink	Very vig.	Dwf., beds, pillar	Moderate	Free-flowering
Colonel R. S. Williamson	1907	Satiny-pink and blush	Vigorous	Dwarf, beds	Moderate	Large and full
Comte G. de Rochemur	1912	Bright crimson	Vigorous	Dwf., beds	Moderate	Fragrant, free-blooming
Comtesse Félicité Hoyos	1911	Satin-yellow, rose and carmine	Vigorous	Dwf., beds, exhib.	Moderate	Pretty colours
Comtesse Icy Hardegg	1907	Bright carmine	Vigorous	Dwarf, beds	Moderate	Free-flowering
Comtesse M. Christina Pes	1912	Satin-rose	Robust	Dwarf, beds	Moderate	Free-flowering
Comtesse M. de Pourtales	1914	Creamy-white and red	Vigorous	Dwarf, beds	Moderate	Very fragrant
Cordelia	1915	Coppery-yellow	Vigorous	Pillar	Light	Perpetual-flowering
Countess Annesley	1905	Rosy-salmon and old gold	Robust	Dwf., beds, exhib	Hard	Fragrant
Countess of Caledon	1897	Rose-carmine	Vigorous	Dwf., beds, exhib.	Light	Very fragrant
Countess Clanwilliam	1914	Pink and cherry-red	Vigorous	Dwf., st., beds, ex.	Hard	Gold Medal rose
Countess of Derby	1905	Flesh-peach	Vigorous	Dwarf, beds	Hard	Good Autumn rose, frag.
Countess of Gosford	1906	Salmon-pink, rose and yellow	Vigorous	Dwf., beds, exhib	Moderate	Gold Medal rose
Countess of Ilchester	1909	Carmine-pink	Moderate	Dwf., stand, ex.	Hard	Very large flowers
Countess of Shalfesbury	1911	Carmine and shell-pink	Vigorous	Dwf., beds, exhib.	Moderate	Gold Medal rose
Crimson Chatenay	1915	Crimson	Vigorous	Dwarf, beds	Moderate	Fragrant
Crimson Crown	1905	Dark crimson	Vigorous	Dwf., stand., beds	Moderate	Very free-flowering
Crimson Emblem	1916	Crimson-scarlet	Vigorous	Dwarf, beds	Moderate	Fragrant
Crown Princess Cecillie	1907	Silvery-rose	Vigorous	Dwarf, beds	Moderate	Continuous bloomer
Cupid	1915	Flesh and peach	Very vig.	Pillars	Little	Very large, single

Variety.	When introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
C. V. Haworth	1916	Vivid crimson	Vigorous	Dwarf, beds	Moderate	Long stems
C. W. Cowan	1912	Carmine-cerise	Vigorous	Dwf., stand., beds	Moderate	Very fragrant
Cynthia	1909	Leopon-yellow and white	Vigorous	Dwf., beds, exhib.	Moderate	A pleasing rose
Cynthia Forde	1909	Deep rose-pink	Vigorous	Dwf., beds, exhib.	Moderate	Gold Medal rose
Dane	1913	Soft yellow	Vigorous	Pillar	Little	Semi-double, free
Danmark	1890	Pink	Moderate	Dwarf, beds	Moderate	Fragrant
David Harum	1904	Rosy-pink	Vigorous	Dwarf, beds	Hard	Free-flowering
Dawn	1898	Pink and rose	Very vig.	Bush or pillar	Light	Semi-single
Dean Hole	1904	Pale silvery rose	Vigorous	Dwf., beds, exhib.	Moderate	Gold Medal rose
Deorator	1913	Crimson, striped yellow	Robust	Dwarf, beds	Moderate	Blooms in clusters
Desdenonia	1911	Rose and pink	Vigorous	Dwf., beds, exhib.	Moderate	Good in Aut., very frag.
Donald MacDonald	1916	Carmine	Vigorous	Dwarf, beds	Moderate	Has a Tea perfume
Dora	1906	Peach	Vigorous	Dwarf, beds	Moderate	Good Autumn rose
Dora Van Tets	1913	Deep velvety-crimson	Vigorous	Dwarf, beds	Moderate	Continuous bloomer
Dorothy	1905	Bright flesh	Vigorous	Dwarf, beds	Moderate	High centred blooms
Dorothy Page-Roberts	1907	Coppery-pink	Vigorous	Dwarf, beds	Moderate	Fragrant, Gold Medal
Dorothy Ratcliffe	1911	Coral-red, yellow and fawn	Vigorous	Dwf., beds, exhib.	Moderate	Good for massing
Dream	1914	Straw yellow	Vigorous	Beds, exhibition	Moderate	Massive flowers
Dr. G. Kruger	1914	Bright crimson	Vigorous	Dwarf, beds	Moderate	Very fragrant
Dr. J. Campbell Hall	1904	Coral-rose and white	Vigorous	Dwarf, beds	Moderate	Free-flowering
Dr. Nicolas Welter	1913	Rosy-salmon	Vigorous	Dwf., beds, exhib.	Moderate	Good Autumn rose
Dr. O'Donel Browne	1908	Carmine-rose	Vigorous	Dwf., st. beds, ex.	Light	Very fragrant, Gold Med.
Duchess of Abercorn	1913	Flesh, blush, cream	Vigorous	Dwarf, beds	Moderate	Free-flowering
Duchess of Albany	1888	Pink	Vigorous	Dwarf, beds, pots	Light	Fragrant
Duchess of Normandy	1912	Salmon-flesh and cream	Vigorous	Dwf., beds, exhib.	Moderate	High centred blooms
Duchess of Portland	1901	Sulphur-yellow	Moderate	Dwf., st. bed, ex.	Light	Gold Medal rose
Duchess of Sutherland	1912	Rose-pink and lemon	Vigorous	Dwf. bed exhib.	Hard	Free-flwng. fragrant
Duchess of Wellington	1909	Safron-yellow and orange	Vigorous	Dwf. stand, bed	Moderate	Very fragrant

Roses and their Cultivation.

Hybrid Tea—continued.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Duchess of Westminster	1911	Rose-madder	Vigorous	Dw., ex., pot., bed	Moderate	Fragrant
Earl of Gosford	1912	Dark crimson	Vigorous	Dwarf, exhib.	Hard	Very fragrant
Earl of Warwick	1904	Salmon-pink and verm.	Vigorous	Dwf., st., bed., ex.	Moderate	Large full, good shape
Ecarlate	1907	Light scarlet	Vigorous	Dwarf, bed.	Moderate	Good for massing
Edu Meyer	1905	Copper, yell., red, and or.	Moderate	Dwarf, bed.	Moderate	Good button-hole
Edward Bohane	1915	Crimson and orange	Vigorous	Dwf., bed	Moderate	Gold Medal rose
Edward Mawley	1911	Dark crimson	Vigorous	Dw. st. bed, ex, pot	Moderate	Fragrant, Gold Medal
Edgar M. Burnett	1914	Flesh and rose	Vigorous	Dwf., bed., ex.	Moderate	Gold Medal, very frag.
Edith Part	1913	Red, salmon, and yellow	Vigorous	Dwarf, bed.	Moderate	Free, very fragrant
Effective	1913	Intense crimson	Very vig	Ar., pil., wall	Moderate	Very fine, fragrant
E. H. T. Broadwood	1916	Fawn-yellow	Vigorous	Dwf., bed	Moderate	Fragrant
Elaine	1908	Lemon, pink, and rose	Vigorous	Dwarf, bed.	Moderate	Good for massing
Elizabeth	1911	Rosy-pink	Vigorous	Dwf., bed, exhib.	Moderate	Fragrant
Elizabeth Barnes	1907	Salmon, pink, and fawn	Vigorous	Dwarf, bed.	Moderate	Very fragrant
Entente Cordiale	1909	Creamy-white, sulphur	Vigorous	Dwarf, bed.	Moderate	Large, bold flowers
England's Glory	1902	Flesh-pink	Vigorous	Dwarf, bed.	Moderate	Warm season rose
Ethel Malcolm	1910	Ivory-white	Climber	Pr. or arch	Little	Gold Medal rose
Etincelante	1914	Red, purple, and crimson	Vigorous	Dwf. bed, exhib.	Moderate	Very free-flowering
E. T. Cook	1905	Yellow and pink	Vigorous	Dwf., bush, bed	Moderate	Reflexed petals
Etoile de France	1904	Velvety-crimson	Vigorous	Dwarf, pots only	Moderate	No good outdoors
Eugene Boulet	1910	Crimson and carmine	Vigorous	Dwarf, bed.	Moderate	Good bedding rose
Eureka	1914	Bright rose	Vigorous	Dwf. or st.	Moderate	Good-shaped flowers
Evelyn Danntesey	1911	Salmon and carmine-rose	Vigorous	Dwf. bed, exhib.	Moderate	A beautiful rose
Exquisite	1899	Bright crimson	Robust	Dwf., st., bed.	Moderate	Long buds
F. E. Coulthwaite	1908	Cream and blush	Vigorous	Dwf., st., bed.	Hard	Free flowering, frag.
F. M. Moller	1911	Old rose	Vigorous	Dwf., bed, exhib.	Moderate	Large flowers
Ferniehurst	1911	Rose, coppery-pink, fawn	Vigorous	Dwf. bed, exhib.	Moderate	Fragrant
Flame of Fire	1915	Orange flame	Sturdy	Dwf., bed	Moderate	Free, fragrant

Hybrid Tea—continued.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Florence Forrester	1914	White and lemon	Vigorous	Dwf., ex., bed.	Moderate	Gold Medal, fragrant
Florence H. Veitch	1911	Dark scarlet-crimson	Vigorous	Bush or pillar	Little	Fragrant
Florence Pemberton	1903	Creamy-white, blush	Vigorous	Standard, exhib.	Light	Gold Medal rose
Florence Spaul	1915	Rose-pink	Vigorous	Dwf., bed	Moderate	Very fragrant
F. Chatteris Seaton	1911	Deep rose-pink	Vigorous	Dwarf, bed.	Moderate	Fragrant
François Crousse	1900	Crimson	Vigorous	Pillar, S. wall	Little	Continuous bloomer
Freda	1911	Old rose	Vigorous	Dwf., bed, exhib.	Moderate	Continuous flowering
F. R. Patzer	1909	Creamy-buff to pink	Vigorous	Dwf., pots, ex.	Moderate	Fragrant
Galatea	1914	Stone, edged pink	Very vig	Pillar	Moderate	Good autumn rose
G. Amedee Hammond	1913	Deep apricot to buff	Vigorous	Dwf., bed	Moderate	Gold Medal, frag.
General McArthur	1905	Bright scarlet-crimson	Vigorous	Dwf., st., bed	Moderate	Fragrant
General Superior A. Janssen	1911	Deep carmine	Vigorous	Dwarf, bed	Moderate	Large, fragrant
Geoffrey Henslow	1912	Orange-crimson	Vigorous	Dwarf, exhib.	Hard	Large, fragrant
George C. Waud	1908	Orange-vermilion	Vigorous	Dwf., st., bed, ex	Hard	Fragt., Gold Medal rose
George Dickson	1912	Black-crimson	Vigorous	Dwf., bed, exhib.	Moderate	Gold Medal rose, fragt.
George Laing Paul	1903	Carmine-crimson	Vigorous	Dwarf, bed	Moderate	Long buds
George Reimert	1910	Very red	Vigorous	Dwf., bed, pots	Moderate	Large, full, long buds
Gladys Harkness	1900	Salmon-pink	Vigorous	Dwf., st., bed, ex.	Hard	Fragrant
Gladys Holland	1916	Cream and pink	Vigorous	Dwf., bed	Moderate	Gold Medal, fragrant
Gloire Lyonnaise	1884	Pale lemon	Vigorous	Dwf., st., bed	Moderate	Good buttonhole rose
Golden Emblem	1915	Golden-yellow	Vigorous	Dwf., bed	Moderate	Gold Medal, fragrant
Golden Meyer	1915	Golden-yellow	Vigorous	Dwf., bed, exhib.	Moderate	Very attractive
Golden Spray	1915	Golden-yellow	Very vig	Dwf., bed	Moderate	Gold Medal, semi-singl'
Gorgous	1915	Orange, yell., and copper	Vigorous	Dwf., bed, exhib.	Moderate	Gold Medal rose
Grace Darling	1884	White and rose	Vigorous	Dwf., st., bed	Light	Free-flowering
Grace Molyneux	1908	Creamy-apricot, flesh	Vigorous	Dwarf, bed	Moderate	Decorative rose, fragt.
Gross an Teplitz	1897	Crimson	Very vig.	Dwf., st, pill, etc.	Little	Fragrant

Roses and their Cultivation.

Hybrid Tea—continued.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Grange Colombe	1912	Creamy-white, yellow, fawn	Vigorous	Dwarf, bed	Moderate	Erect grower
Gustav Grunerwald	1903	Carmine-pink, yellow	Vigorous	Dwf., st., bed	Light	Fragrant
Gustave Régis	1890	Nankeen-yellow	Very vig.	Dwf., pill., bush	Light	Good buttonhole rose
Gustave Sobry	1902	Golden-yellow	Vigorous	Dwarf, bed	Moderate	Very floriferous
H. Armytage Moore	1907	Rose-pink	Vigorous	Dwarf, bed	Moderate	Shell-shaped petals
Hector Mackenzie	1907	Red and carmine	Vigorous	Dwarf, bed	Moderate	Large, full flowers
Hélène Guillot	1902	Salmon-white, carmine	Vigorous	Dwarf, bed	Moderate	Very pretty colour
Helvetia	1912	Rose and red	Vigorous	Dwarf, bed	Moderate	Long buds, fragrant
Henri Bucher	1914	Sulphur-yellow	Vigorous	Dwarf, bed	Moderate	Long buds
Henrietta	1915	Orange-crimson	Vigorous	Dwf., bed	Moderate	Very fragrant
Herzogin M. Henriette	1911	Orange and salmon-crimson	Vigorous	Dwarf, bed	Moderate	Fragrant, long buds
His Majesty	1909	Carmine-crimson	Vigorous	Dwf., st., exhib.	Hard	Gold Medal rose
H. E. Richardson	1913	Rich Crimson	Vigorous	Dwarf, bed	Moderate	Fragrant, Gold Medal
H. F. Eilers	1914	Carmine and blue-red	Vigorous	Dwf., bed, pot	Moderate	Long-pointed buds
Hilda Richardson	1913	Rose-lilac, white, etc.	Vigorous	Dwarf, bed	Moderate	Fragrant, superb rose
Hon. Ina Brigham	1907	Pure pink	Vigorous	Dwarf, bed	Moderate	Semi-double
Hon. Mrs. R. C. Grosvenor	1916	Porch., flesh, and or.-yell.	Vigorous	Dwf., bed	Moderate	Good autumn rose
Hoosier Beauty	1915	Glowing crimson	Vigorous	Dwf., bed, exhib.	Hard	Gold Medal rose
H. V. Machin	1914	Scarlet-crimson	Vigorous	Dwarf, exhib.	Hard	Gold Medal rose
Imogene	1915	Or., yell., cream, and wh.	Vigorous	Dwf., bed, exhib.	Moderate	Good-shaped blooms
Instituteur Sirday	1906	Golden-yellow	Vigorous	Dwarf, bed	Hard	Large, full blooms
Iona	1914	Poppy-red	Vigorous	Dwarf, bush	Little	Single-flowered
Iona Herdman	1914	Clear orange	Vigorous	Dwarf, bed	Moderate	Gold Medal, fragrant
Irish Beauty	1900	Pure white	Vigorous	Dwarf, bed	Moderate	Single-flowered
Irish Brightness	1903	Crimson	Very vig.	Bush	Moderate	Single-flowered
Irish Elegance	1905	Apricot	Vigorous	Dwarf, bed	Moderate	Single-flowered

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Irish Engineer	1904	Scarlet	Robust	Dwarf, bed	Moderate	Single-flowered
Irish Fireflame	1913	Brilliant apricot	Vigorous	Dwarf, bed Pillars	Moderate	Single-flowered
Do. Climbing	1900	Silvery-pink	Vigorous	Dwarf, bed	Moderate	Single-flowered
Irish Glory	1904	Saffron-yellow, white	Moderate	Dwarf, bed	Moderate	Long, elegant buds
Irish Harmony	1900	Coral pink	Vigorous	Dwarf, bed	Moderate	Single-flowered
Irish Modesty	1915	Carn., copp., and yell.	Vigorous	Dwf., bed	Moderate	Gold Medal, single, fr
Isobel	1908	Coral-red and yellow	Vigorous	Dwarf, bed	Moderate	Single-flowered
Jacques Vincent	1911	Light pink	Vigorous	Dwarf, bed	Light	Like Caroline Testout
James Ferguson	1907	Soft yellow	Moderate	Dwarf, bed	Hard	Good bedding rose
James Coey	1915	Buff, orange	Moderate	Dwf., bed	Light	Good bedder
Janet	1905	Scarlet-crimson and plum	Very vig.	Dwf.,st.pillar,ex	Hard	Gold Medal rose
J. B. Clark	1908	Chrome-yellow and cream	Vigorous	Dwarf, bed	Hard	Large, globular flowers
Jeanne Barioz	1907	Pale salmon	Vigorous	Dwarf, bed	Moderate	Fragrant
Jeanne Buatois	1899	Pearly white	Vigorous	Dwarf, bed	Moderate	Free-flowering
Jeanne Libaud	1898	Satiny-rose	Vigorous	Pillar	Little	Semi-climber
Jeanne Phillipe	1908	Nankeen-yell. and carmine	Vigorous	Dwarf, bed	Moderate	Good bedding rose
Jersey Bedder	1916	Dark scarlet	Vigorous	Dwf., bed	Moderate	Very fragrant
Johanna Bridge	1915	Canary-yellow	Vigorous	Dwf., bed	Moderate	Buds long, semi-double
Johanna Sebus	1914	Rose and yellow	Climber	Pillar	Little	Large flowers
John Cuff	1902	Carmine-pink	Vigorous	Dwf., bed, ex.	Moderate	Profuse bloomer
John Green	1916	Blush	Vigorous	Exhib.	Hard	Very large blooms
John Ruskin	1902	Rosy-carmine	Vigorous	Dwarf, bed	Hard	Fragrant, Gold Medal
Jonkeer J. L. Mock	1910	Deep pink	Vigorous	Dwf., bed, ex.	Moderate	Fragrant
Joseph Henslow	1912	Orange-crimson	Vigorous	Dwarf, exhib.	Hard	Perfectly-formed rose
Joseph Hill	1903	Salmon-pink, yellow	Vigorous	Dwf., st., bed	Moderate	Fragrant
Joseph Lowe	1908	Blush-white	Moderate	Dwf., st., bed	Hard	Also known Lady Faire

Roses and their Cultivation.

Hybrid Tea—continued.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Josephine	1914	Rosy-flesh and salmon-yell.	Vigorous	Dwf., bed, ex.	Moderate	Large, full flowers
Josephine Nicholson	1914	Bright pink	Vigorous	Dwf., bed	Moderate	Good garden rose
Jewel	1911	White	Robust	Dwarf, exhib.	Hard	Very fragrant
Kaiserin Augusta						
Victoria						
Do. Climbing	1891	Cream and lemon	Moderate	Dwf., st., bed, ex.	Moderate	Good pot rose
Killarney	1897	Primrose-cream	Climber	Pillar, W. wall	Little	Excellent rose
Do. Climbing	1898	Flesh-white and pink	Vigorous	Dwf., st., bed, pot	Moderate	Very fragrant
Killarney Brilliant	1898	Pale pink	Very vig.	Pillar	Very little	Very fragrant
King George V.	1914	Deep rosy-carmine	Vigorous	Dwf, stand, bed	Moderate	Brilliant colour, frag.
King of Siam	1912	Blackish-crimson	Vigorous	Dwf, stand, bed	Moderate	Free, Gold Medal
La France	1913	Bright red	Vigorous	Dwarf, bed	Moderate	Very fragrant
Do. Climbing	1867	Silvery-rose	Vigorous	Dwf. st. bed, ex.	Light	Very fragrant
La France de '89	1884	Silvery-rose	Climber	Pillar, W. wall	Little	Very fragrant
Do. Climbing	1889	Brick-red	Vigorous	Dwf. st. bed, plr.	Light	Free-flowering
Do. Climbing	1894	Silvery-rose	Very vig.	Pillar, S. wall	Very little	Fragrant
La Galisriere	1907	Silvery-pink and white	Vigorous	Dwf., stand, bed	Moderate	Large, full flowers
La Hollande	1911	White, rose-yellow	Robust	Dwarf, bed	Moderate	Large-flowered
La Tosca	1900	Pink, white, and yellow	Vigorous	Dwf., stand, bed	Moderate	Very free-flowering
Lady Alice Stanley	1909	Coral-pink and flesh	Vigorous	Dwf., bed, pot	Moderate	Fragrant, Gold Medal
Lady Ashtown	1904	Pale rose, and silvery-pink	Vigorous	Dwf., stand, bed	Moderate	Free-flowering
Do. Climbing	1909	Deep pink	Climber	Pillar, arch	Little	Free-flowering
Lady Barham	1911	Coral-pink	Vigorous	Dwf., exhib., pot	Moderate	Fragrant
Lady Battersea	1901	Cherry-crimson	Moderate	Dwarf, bed	Hard	Buds long and pointed
Ladybird	1914	Yellow and orange	Vigorous	Dwf., st.	Moderate	Very pretty
Lady Bowater	1915	Blush white and apricot	Vigorous	Dwf., bed	Moderate	Pointed centres
Lady de Bathe	1911	Creamy-white and peach	Vigorous	Dwarf, exhib.	Hard	Large, full, good shape
Lady Coventry	1913	Vermilion and blue tinted	Vigorous	Dwarf, bed	Moderate	Striking colour

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Lady Downe	1911	Yellow	Vigorous	Dwarf, bed	Moderate	Large, handsome bloom
Lady Dunleath	1913	Ivory-cream, white, orange	Vigorous	Dwarf, bed	Moderate	Fragrant
Lady Greenall	1911	Saffron-or., shell-pink, crim.	Vigorous	Dwarf, bed, pot	Hard	Fragrant
Lady Helen Vincent	1907	Pink and yellow	Moderate	Dwarf, exhib.	Hard	Fragrant, Gold Medal
Lady Katherine Rose	1911	Rose	Vigorous	Dwf., bed, exhib.	Moderate	Very attractive
Lady Mary Fitzwilliam	1882	Delicate flesh	Moderate	Dwarf, exhib.	Hard	Large, globular flowers
Lady Margaret Boscawen	1911	Shell-pink or fawn	Vigorous	Dwarf, bed	Moderate	Fragrant
Lady Mary Ward	1913	Deep orange	Vigorous	Dwarf, bed	Moderate	Gold Medal rose
Lady Moyra Beauchlere	1901	Rich madder-rose	Vigorous	Dwarf, exhib.	Moderate	A charming rose
Lady Pirrie	1910	Coppery-salmon	Vigorous	Dwf. st. bed, pot	Moderate	Lovely, Gold Medal rose
Lady Reay	1911	Deep rich pink	Vigorous	Dwarf, bed	Moderate	Good bedding rose
Lady Quartus Ewart	1906	White	Vigorous	Dwarf, bed	Moderate	Flowers last well
Lady Rosmore	1906	Reddish-crimson and claret	Vigorous	Dwarf, bed	Hard	Good bedding rose
Lady Ursula	1908	Flesh-pink	Vigorous	Dwarf, bed	Hard	Fragrant
Lady Waterlow	1903	Salmon-pink and crimson	Very vig.	S. wall, pillar	Hard	Free-flowering
Lady Wenlock	1905	China rose and apricot	Vigorous	Dwarf, bed	Hard	Buds long and pointed
Laurent Carle	1907	Brilliant carmine	Vigorous	Dwf., stand, bed	Moderate	Long buds
Le Progrès	1904	Golden-yellow	Vigorous	Dwf., stand, bed	Hard	Very free-flowering
Leslie Holland	1911	Scarlet-crimson	Vigorous	Dwf., bed, exhib.	Moderate	Fragrant, Gold Medal
Lemon Queen	1912	Lemon-yellow	Very vig.	Pillar	Little	Free-flowering
Leonie Lambert	1914	Rose and yellow	Vigorous	Dwf., bed, pot	Moderate	Fragrant
Lieutenant Chauré	1910	Rich crimson	Vigorous	Dwarf, bed	Moderate	Long pointed buds
Liberty	1900	Brilliant crimson	Moderate	Dwf., bed, pot	Moderate	Fragrant
Do. Climbing	1908	Crimson	Climber	S. wall, pr.	Little	Fragrant
Ligne Aremborg	1903	Creamy-white and pink	Vigorous	Dwf., bed, exhib.	Moderate	Large, handsome rose
Lillian Moore	1916	Soft flesh and yellow	Vigorous	Dwf., bed	Moderate	Stout, long stems
L'Innocence	1898	Pure white	Vigorous	Dwarf, bed	Moderate	Full, globular flowers

Roses and their Cultivation.

Hybrid Tea—continued.

Variety.	When introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Longworth Rambler	1880	Crimson	Climber	Pllr. or W. wall	Little	Free-blooming
Lord Kitchener	1916	Or., sal., and old rose	Robust	Dwf., bed	Moderate	Very fragrant
LouiseCatherineBreslau	1911	Pink, orange, yellow	Vigorous	Dwarf, bed	Moderate	Beautiful colour
Louise Lilia	1913	Dark blood-red	Moderate	Dwarf, bed	Moderate	Good bedding rose
Lucien Chauve	1914	Flesh and rosy-cream	Vigorous	Dwf., bed, pot	Moderate	Very large blooms
Mabel Drew	1911	Cream to yellow	Vigorous	Dwf. st. bed, ex.	Moderate	Fragrant, Gold Medal
Madame Abel Chatenay	1895	Salmon-pink	Vigorous	Dwf. st. bed, pot	Moderate	Frgmnt., buttonhole rose
Madame Bardou Job	1914	Chrome to citron-yellow	Vigorous	Dwarf, bed	Moderate	Very floriferous
Madame Cadeau-Ramey	1897	Blush, yellow, and carmine	Vigorous	Dwarf, bed	Moderate	Very beautiful rose
Madame Charles de Luze	1904	Flesh, buff, yellow	Vigorous	Dwarf, bed	Moderate	Good autumnal rose
Madame Alex. Billion	1912	Rosy-salmon and cream	Moderate	Dwf., stand, bed	Moderate	Free-flowering
Madame Charles Lutaud	1912	Yellow and rosy-scarlet	Vigorous	Dwarf, bed	Moderate	Large, globular flower
MadameCharlesLejeune	1912	Silvery-flesh and rose	Vigorous	Dwarf, bed	Moderate	Large, full flowers
Madame Chas. Monnier	1901	Rose,yellow,salmon,orange	Climber	Pillar or arch	Little	Pretty colour
Madame C. Chambard	1912	Rose, salmon and saffron	Vigorous	Dwarf, bed	Moderate	Fragrant, long buds
Madame C. Martinet	1915	Golden-yellow	Vigorous	Dwf., bed	Moderate	Long buds
Madame E. Rostand	1912	Flesh, salmon, orange	Vigorous	Dwarf, bed	Moderate	A charming rose
Madame Edmée Metz	1901	Pink-salmon	Vigorous	Dwf., stand, bed	Moderate	Mildew proof rose
Mad. Eugénée Bouillet	1898	Yellow and carmine	Vigorous	Dwarf, bed	Moderate	Beautiful in the bud
MadameJennyGuillemot	1905	Light yellow	Vigorous	Dwarf, bed	Moderate	Long buds
Madame Jules Bouchet	1911	White and pink	Vigorous	Dwarf, bed	Moderate	Free-flowering
Madame Jules Grolez	1897	Silvery-rose	Moderate	Dwf., stand, bed	Moderate	Fragrant
Do. Climbing	1897	China pink	Very vig.	Pillar or arches	Very little	Free-flowering
MadameHectorLeuilliot	1904	Yellow and orange	Vigorous	St., pllr, S. wall	Light	Shy bloomer
Madame J. W. Budde	1906	Brilliant carmine	Vigorous	Dwarf, bed	Moderate	Long pointed buds
Madame L. Fancheron	1912	Creamy-white to yellow	Vigorous	Dwarf, bed	Moderate	Fragrant
Madame Léon Pain	1904	Silvery-flesh, or., and yell.	Vigorous	Dwarf, st., bed	Hard	Free-flowering

Hybrid Tea—continued.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Madame Maurice Capron	1914	Apricot-yellow	Vigorous	Dwarf, bed	Moderate	Large, cup-shaped flwrs
Madame Maurice de Luze	1907	Rose-pink and carmine	Vigorous	Dwarf, bed	Moderate	Fragrant
Madame Mélanie Soupert	1905	Salmon-yellow and carmine	Vigorous	Dwf, st., bed, ex	Moderate	A most lovely rose
Do. Climbing	1905	Salmon, yell., and car.	Very vig.	Plr., S. or W. walls	Very little	Long buds
Madame Paul Olivier	1902	Salmon and carmine	Vigorous	Dwarf, bed	Moderate	Long, graceful buds
Madame Paul Rouchan	1912	Canary-yellow	Vigorous	Dwarf, bed	Moderate	Fragrant
Madame Pernet Ducher	1891	Canary-yellow	Moderate	Dwarf, bed	Light	Beautiful in bud
Madame Pierre Bouchaud	1914	Coppery-red, pink, carmine	Vigorous	Dwarf, bed	Moderate	Large, cup-shaped flwrs
Madame P. Rivoire	1905	Apricot-yellow	Vigorous	Dwarf st., bed	Moderate	Large, full flowers
Madame P. Euler	1908	Vermilion and pink	Vigorous	Dwarf, bed	Moderate	Fragrant
Madame Ravary	1899	Orange-yellow	Vigorous	Dwf, st, bed, pots	Moderate	Good bedding rose
Madame R. Arnaud	1912	Pink, yellow, and red	Vigorous	Dwarf, bed	Moderate	Very fragrant
Madame Second Weber	1907	Rosy-salmon	Vigorous	Dwf, st, bed, pots	Moderate	Continuous bloomer
Madame T. Delacourt	1913	Red, salmon, and yellow	Vigorous	Dwarf, bed	Moderate	Excellent garden rose
Madame Wagram,						
Comtesse de Turenne	1895	Flesh and rose	Vigorous	Dwf. st. bed, ex.	Light	Autumn-blooming
Mdlle. C. Jouranville	—	Silvery-flesh	Vigorous	Dwarf, bed	Moderate	Free-flowering
Mdlle. Marie Mascurang	1909	White and salmon-yellow	Vigorous	Dwarf, bed	Moderate	Large, cup-shaped blms
Mdlle. Semone Beaumez	1906	Flesh-white	Vigorous	Dwarf, bed	Moderate	Large, full flowers
Madonna	1914	White to creamy-yell.	Vigorous	Dwf., st.	Moderate	Massive flowers
Magnolia	1912	Yellow to cream	Moderate	Dwarf, bed	Moderate	Semi-double, fragrant
Majestic	1914	Carmine-rose	Vigorous	Dwf., bed, exhib.	Moderate	Gold Medal rose
Major Peirson	1915	Orange, yellow	Vigorous	Dwf., bed	Moderate	Free-flowering
Mama Looyercans	1901	Rosy-carmine	Vigorous	Dwarf, exhib.	Hard	Fragrant
Maurice P. Azenedo	1910	Reddish-salmon	Vigorous	Dwarf, bed	Moderate	Semi-double
Marcella	1911	Cerise-red	Vigorous	Dwarf, bed	Moderate	Large, full flowers
	1913	Buff to salmon-flesh	Vigorous	Dwarf, bed	Moderate	Very free flowering

Roses and their Cultivation.

Hybrid Tea—continued.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Marchioness of Waterford	1910	Salmon-pink	Vigorous	Dwf., bed, exhib.	Moderate	Good all-round rose
Margaret	1909	Soft pink	Vigorous	Dwf. bed ex. pot	Moderate	Buds long and pointed
Margaret Harliston	1916	White to yellow	Vigorous	Dwf., bed	Moderate	Tea fragrance
Marjorie	1895	White and salmon-pink	Robust	Dwf., stand, bed	Moderate	Excellent bedding rose
Margt. Dickson Hamill	1914	Maize and carmine	Vigorous	Dwf., bed	Moderate	Gold Medal, frag.
Margaret Molyneux	1909	Saffron-yellow and apricot	Vigorous	Dwf., bed, pot	Moderate	Good buttonhole rose
Margherita Croze	1914	Carmine-purple and rose	Vigorous	Dwarf, bed	Moderate	Very free-flowering
Marie Adelaide	1912	Orange-yellow	Vigorous	Dwarf, bed	Moderate	Long pointed buds
Marichu Zayas	1907	Strawberry and rose	Vigorous	Dwf., stand, bed	Moderate	Very fragrant
Marie Louise Poirer	1900	Rose	Vigorous	Dwarf, bed	Moderate	Free-flowering
Marguerite Appert	1886	Bright red	Vigorous	Dwarf, bed	Light	Very large flowers
Marie Lavalley	1880	Creamy-white and pink	Very vig.	Pllr., arch, prgl.	Light	Pleasing colour
Marquise d'Hautpaul	1915	Pink and salmon	Vigorous	Dwarf, bed	Light	Fragrant
Marquise de Ganay	1910	Silvery-pink	Vigorous	Dwf., bed, exhib.	Moderate	Fragrant
Marquise de Salisbury	1890	Bright crimson	Moderate	Dwf., stand, bed	Light	Good decorative rose
Marquise de Sinéty	1906	Golden yellow and red	Moderate	Dwarf, bed	Hard	Pleasing colour
Do. Climbing	1906	Yellow and red	Climber	Pr. or W. wall	Little	Tender
Marquise Litla	1894	Carmine-rose and vermilion	Moderate	Dwf. st. bed, ex.	Hard	Fragrant
Marquise J. de la Chataigneraye	1902	Silvery-white and yellow	Vigorous	Dwarf, bed	Moderate	Buds long and graceful
Mary, Countess Ilchester	1910	Dull crimson	Vigorous	Dwarf, bed	Moderate	Fragrant
Mary Greer	1913	White and yellow	Vigorous	Dwf., bed	Moderate	Fragrant
May Kenyon Slaney	1910	Blush-pink and cream	Vigorous	Dwarf, bed	Moderate	Fragrant
Melody	1911	Saffron-yellow and primrose	Vigorous	Dwf., bed, pot	Moderate	Fragrant, buttonhole rose
Millady	1913	Red-scarlet	Vigorous	Dwf., bed, pot	Moderate	Flwrs. with stiff stems
Miss Muriel Jamison	1910	Cadmium-orange	Vigorous	Dwarf, bed	Moderate	Very pretty
Miss Stewart Clark	1916	Pure golden-yellow	Vigorous	Dwf., bed	Moderate	Exquisitely fragrant

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Mildred Grant	1901	Ivory-white and peach	Robust	Dwf., st., exhib.	Hard	Gold Medal rose
Modesty	1915	Cream and rose	Vigorous	Exhib.	Hard	Gold Medal, very frag.
Mons. de Rochambrau	1914	Carmine, orange, and white	Vigorous	Dwarf, bed	Moderate	Large flowers
Moonlight	1913	White and lemon	Climber	Pr. or pergola	Little	Semi-single
Morgenroth	1903	Crimson and white	Very vig.	Bush or pillar	Little	Free-bloomer
Mrs. Alfred Jernyn	1916	Shrimp-pink, sal., and rose	Vigorous	Dwf., bed	Moderate	Charming colour
Mrs. Ambrose Riccardo	1914	Deep yellow	Vigorous	Dwf., bed, exhib.	Moderate	Fragrant
Mrs. Aaron Ward	1907	Indian-yellow and white	Vigorous	Dwf., stand, bed	Moderate	Very floriferous
Mrs. Alfred Tate	1909	Coppery-red and fawn	Vigorous	Dwf., stand, bed	Moderate	Semi-double, fragrant
Mrs. Amy Hammond	1911	Cream and amber	Vigorous	Dwf. st. bed, ex.	Moderate	Gold Medal rose
Mrs. Andrew Carnegie	1913	Creamy-white	Vigorous	Dwf., bed, exhib.	Moderate	Fragrant, Gold Medal
Mrs. Archie Gray	1914	Creamy to canary-yellow	Vigorous	Dwf., bed	Moderate	Gold Medal rose
Mrs. Archibald Mackay	1915	Pink and salmon	Vigorous	Dwf., st. bed, ex.	Moderate	Fragrant
Mr. Arthur E. Coxhead	1910	Claret-red and vermilion	Vigorous	Dwf., st., ex.	Hard	Very fragrant
Mrs. A. R. Waddell	1908	Coppery-red and salmon	Vigorous	Dwf., st., bed, pt.	Moderate	Semi-double
Mrs. Arthur Munt	1909	Cream to buff	Moderate	Dwf., st., bed	Moderate	Fragrant
Mrs. Bertram Walker	1914	Cerise pink	Vigorous	Dwf., bed	Moderate	Gold Medal, fragrant
Mrs. Bryce Allen	1916	Rose-pink	Vigorous	Bed, exhib.	Moderate	Gold Medal, fragrant
Mrs. Charles E. Allan	1911	Orange to buff	Vigorous	Dwf., bed	Moderate	Buds long and pointed
Mrs. C. Curtis Harrison	1910	Crimson-pink	Robust	Dwf., st., bed	Moderate	Fragrant
Mrs. Forde	1913	Carmine-rose and yellow	Vigorous	Dwf., st., bed	Moderate	Very frag., Gold Medal
Mrs. Charles Hunter	1912	Rose-pink	Vigorous	Dwf., st., bed	Moderate	Large, bold flower
Mrs. Charles Reed	1914	Cream, peach, yellow	Moderate	Dwf., bed	Moderate	Very fragrant
Mrs. Charles Russell	1913	Rosy-carmine and scarlet	Vigorous	Dwf., bed, st.	Moderate	Good forcing rose
Mrs. C. E. Pearson	1913	Orange, apricot, fawn	Vigorous	Dwf., exhib.	Moderate	Gold Medal rose
Mrs. C. E. Salmon	1916	Rose and salmon	Vigorous	Dwf., bed	Moderate	Single-flowered
Mrs. Conway Jones	1904	Cream and salmon	Vigorous	Dwf., bed, ex.	Hard	Very pretty

Roses and their Cultivation.

Hybrid Tea—continued.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Mrs. Cornwallis West	1911	White and pink	Vigorous	Dwf. st. bed, ex.	Moderate	Gold Medal rose
Mrs. David Baillie	1912	Madder-carmine	Vigorous	Dwf., bed	Moderate	Fragrant
Mrs. David Jardine	1908	Peach-pink	Vigorous	Dwf. st. bed, fog.	Moderate	Fragrant
Mrs. David McKee	1904	Creamy-yellow	Vigorous	Dwf. st. bed, ex.	Hard	Gold Medal rose
Mrs. Duntop Best	1916	Reddish-apricot	Vigorous	Dwf., bed	Moderate	Very fragrant
Mrs. E. Alford	1913	Silvery-pink	Vigorous	Dwarf, bed	Moderate	Large, full flowers
Mrs. Edward J. Holland	1909	Deep salmon	Moderate	Dwf., bed, ex.	Moderate	Gold Medal, fragrant
Mrs. Edward Powell	1911	Velvety crimson	Vigorous	Dwf., bed	Moderate	Free-flowering
Mrs. E. G. Hill	1905	Coral-red and white	Vigorous	Dwf., bed	Moderate	Fragrant
Mrs. E. G. Townshend	1911	Rosy-fawn and carmine	Vigorous	Dwf., bed	Moderate	Good bedding rose
Mrs. Frank Bray	1912	Orange-yellow	Vigorous	Dwf., bed	Moderate	Very fragrant
Mrs. Frank Workman	1911	Rose-pink	Vigorous	Dwf., bed	Moderate	Large, reflexed petals
Mrs. Fred Straker	1910	Crimson to fawn	Vigorous	Dwf., bed	Moderate	Fragrant
Mrs. Forde	1913	Carmine-pink, rose, and yell	Vigorous	Dwf., bed	Moderate	Gold Medal, fragrant
Mrs. Franklin Dennison	1915	Porcelain, wh., and yell.	Vigorous	Exhib.	Hard	Enormous flowers
Mrs. F. W. Vanderbilt	1912	Coppery-yellow	Vigorous	Dwf., bed, ex.	Moderate	Very fragrant
Mrs. George Gordon	1915	Rosy and silvery-pink	Vigorous	Dwf., bed	Moderate	Ideal bedder
Mrs. George Norwood	1914	Pink and yellow	Vigorous	Dwf. bed, st. ex.	Moderate	Very fragrant
Mrs. George Preston	1910	Silvery-rose	Vigorous	Dwf., bed	Moderate	Fragrant
Mrs. George Roupell	1916	Coppery-yell. and orange	Vigorous	Dwf., bed	Moderate	Very free-flowering
Mrs. George Shawyer	1911	Pale rose	Vigorous	Dwf., bed, pot	Moderate	Flowers on stiff stems
Mrs. Glen Kidston	1916	Crim. and rosy-carm.	Vigorous	Dwf., bed	Moderate	Free bloomer
Mrs. G. W. Kershaw	1906	Rose-pink	Vigorous	Dwf., bed	Moderate	Very free-flowering
Mrs. Godfrey Browne	1913	Pale rose	Vigorous	Dwf., bed	Moderate	Fragrant
Mrs. Gordon Sloane	1912	Salmon-pink	Vigorous	Dwf., bed	Moderate	Pretty colour, fragrant
Mrs. Harold Brocklebank	1907	Creamy-white and buff	Vigorous	Dwf., bed	Moderate	Fragrant
Mrs. H. Hawksworth	1912	Creamy-white	Vigorous	Dwf., bed	Moderate	Free-flowering

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Mrs. Hugh Dickson	1913	Cream, orange, and ap.	Vigorous	Dwf., bed, exhib.	Moderate	Very fragrant
Mrs. Hugh Dickson	1916	Cream and yellow	Vigorous	Dwf., exhib.	Hard	Beautiful colour
Mrs. Isabelle Milner	1907	Ivory-white and pink	Vigorous	Dwf., st., bed	Moderate	A very pretty rose
Mrs. J. Fred Hawkins	1915	Rose, salmon-pink	Vigorous	Dwf., bed	Moderate	Good bedding rose
Mrs. James Craig	1908	Salmon-rose and yellow	Vigorous	Dwf., bed	Moderate	Very fragrant
Mrs. James Lynas	1914	Pearly-pink and peach	Vigorous	Dwf., bed, st. ex.	Moderate	Gold Medal rose
Mrs. James White	1910	Strawberry pink	Vigorous	Dwf., bed	Moderate	Good buttonhole rose
Mrs. John Foster	1915	Vermilion	Vigorous	Dwf., stand.	Moderate	Fragrant
Mrs. John Bateman	1905	China rose	Vigorous	Dwf., exhib.	Hard	Long, pointed buds
Mrs. Joseph H. Welch	1911	Rose-pink	Vigorous	Dwf., bed, ex.	Hard	Fragrant, Gold Medal
Mrs. Leonard Petrie	1910	Sulphur-yellow	Vigorous	Dwf., bed	Moderate	Fragrant
Mrs. Maud Dawson	1914	Orange, carmine	Vigorous	Dwf., bed	Moderate	Tea perfume
Mrs. Maynard Sinton	1910	Silvery-white and pink	Robust	Dwf., exhib.	Hard	Fragrant, Gold Medal
Mrs. Moyna	1913	Blush	Vigorous	Dwf., bed	Moderate	High-centred blooms
Mrs. Mona Hunting	1912	Chamois yellow	Vigorous	Dwf., bed	Moderate	Fragrant
Mrs. Muir MacKean	1912	Carmine-crimson	Robust	Dwf., exhib.	Hard	Fragrant
Mrs. Peter Blair	1906	Lemon and golden-yellow	Vigorous	Dwf., st., bed	Moderate	Very frag., Gold Medal
Mrs. P. H. Coates	1909	Milky-white	Vigorous	Dwf., bed, pot	Moderate	Very free-flowering
Mrs. Philip le Cornu	1910	Cerise-crimson	Vigorous	Dwf., bed, ex.	Moderate	Free-flowering
Mrs. Richard Draper	1912	Satiny-pink and flesh	Vigorous	Dwf., bed, ex.	Hard	Gold Medal rose, frag.
Mrs. R. D. Maclure	1913	Salmon-pink	Vigorous	Dwf., exhib.	Hard	Gold Medal rose
Mrs. Rosalie Wrinch	1915	Pink	Very vig.	Pillar	Light	Single or semi-double
Mrs. Sam Ross	1912	Straw yellow	Vigorous	Bed, exhib.	Hard	Fragrant, Gold Medal
Mrs. Stewart Clark	1907	Cerise to pink	Very vig	Pllr.or.pgd.dwn.	Light	Gold Medal, fragrant
Mrs. T. Hillas	1913	Chrome-yellow	Vigorous	Dwf., bed	Moderate	Large, full flower
Mrs. T. Delacourt	1903	Reddish-salmon and yellow	Vigorous	Dwf., bed	Moderate	Long buds
Mrs. Theodore Roosevelt	1913	Creamy-white and pink	Vigorous	Dwf. st. bed, ex.	Moderate	Buds long and pointed

Roses and their Cultivation.

Hybrid Tea—continued.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Mrs. W. Sargent	1913	Creamy-white	Vigorous	Dwf., bed	Moderate	Attractive
Mrs. Wakefield Miller	1909	Blush and salmon	Vigorous	Dwf., bed, ex.	Moderate	Large and full flowers
Mrs. W. J. Grant	1895	Rosy-pink	Moderate	Dwf. st. bed, ex.	Hard	Gold Medal, fragrant
Do. Climbing	1909	Rosy-pink	Climber	Pr. or S. wall	Little	Free
Mrs. Wallace H. Rowe	1912	Mauve	Vigorous	Dwf., bed	Moderate.	Novel colour
Mrs. Walter Easlea	1910	Crimson-carmine	Moderate	Dwf., exhib.	Moderate	Highly fragrant
Mrs. William Cooper	1909	Rosy to delicate flesh	Vigorous	Dwf., bed, ex.	Moderate	Fragrant
Mrs. William Milner	1914	Silvery-rose and salmon	Vigorous	Dwf., bed, pot	Moderate	Long buds, fragrant
Mrs. Wilfred Lloyd	1910	Rose-pink	Vigorous	Dwf., bed, ex.	Moderate	Very fragrant
Mrs. W. T. Massey	1911	Orange-yellow	Vigorous	Bush	Light	Single-flowered
L'riuel Jamison	1909	Cadmium-orange	Moderate	Bush	Hard	Single-flowered
My Maryland	1909	Salmon-pink	Robust	Dwf., bed	Moderate	Very fragrant
Naarden	1914	Creamy-white and sal. yel.	Vigorous	Dwf., bed	Moderate	Very floriferous
Nadia	1906	White and cream	Vigorous	Dwf., bed, ex.	Moderate	Large globular flowers
Nance Christy	1906	Salmon-pink	Very vig	Bush	Light	Hardy, free-flowering
Natalie Bottner	1910	Creamy-yellow	Vigorous	Dwf., bed	Moderate	Large, full flowers
National Emblem	1915	Dark crimson	Moderate	Dwf., bed	Light	G. M., very fragrant
Nerissa	1912	Creamy-yellow	Vigorous	Dwf., bed	Moderate	Extra large flowers
Nellie Briand	1903	Silvery-flesh	Vigorous	Dwf., bed	Moderate	Free-flowering
Nellie Parker	1916	Creamy-white	Vigorous	Exhib. or bed	Moderate	Gold Medal, fragrant
Noblesee	1915	Ap., prim., and pink	Vigorous	Dwf., bed	Moderate	Good decorative rose
Noella Nabonnand	1900	Rosy-crimson	Climber	Pr. or W. wall	Little	Fragrant
Odette Perdrille	1911	Cream and carmine	Vigorous	Dwf., bed	Moderate	Very floriferous
Ophelia	1912	Salmon-flesh	Vigorous	Dwf., bed, pot	Moderate	Long buds
Old Gold	1913	Old gold and scarlet	Moderate	Dwf., bed	Moderate	Semi-double, Gold Medal
Oraoëta	1913	Shell-pink	Vigorous	Dwf., st., ex.	Hard	Very fragrant

Hybrid Tea—continued.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Othello	1911	Deep maroon	Vigorous	Dwf., bed	Moderate	Large, well-formed
Papa Gontier	1883	Rosy-crimson	Moderate	Dwf. st. bed, pot	Moderate	Long buds
Do. Climbing	1904	Rosy crimson	Very vig.	S. wall	Very little	Free-flowering
Papa Lambert	1899	Pinkish-rose	Robust	Dwf., exhib.	Hard	Long pointed buds
Parseval	1912	Cream, apricot, and rose	Vigorous	Dwf., exhib.	Hard	Large, good shape
Paul Lédé	1903	Apricot and rose	Moderate	Dwf., bed	Moderate	Fragrant
Do. Climbing	1905	Apricot and rose	Climber	Pr. or arch	Little	Fragrant
Paul's Carmine Pillar	1895	Carmine-scarlet	Very vig.	Pllr., arch, per.	Very little	Single-flowered
Paul's Carmine Pillar	1905	Rosy-carmine	Climber	Pr., arch, per.	Little	Fragrant
Peggy	1905	Claret and saffron-yellow	Vigorous	Dwf., bed	Moderate	Flowers in large trusses
Perle von Godesberg	1902	White and yellow	Moderate	Dwf., bed, ex.	Moderate	Pretty, free-flowering
Pharisäer	1901	White and salmon	Vigorous	Dwf. st. bed, ex.	Moderate	Fine long buds
Pink Pearl	1912	Pale rose	Very vig.	Pillar or per.	Little	Semi-single
Pink Rover	1891	Pale pink	Climber	Pr. or arch	Little	Autumn rose
Portia	1910	Pale rose and yellow	Vigorous	Dwf., bed	Moderate	Large, full flowers
President Vignet	1911	Carmine and red	Vigorous	Dwf., bed	Moderate	Large, full, globular
President W. H. Taft	1910	Salmon-pink	Vigorous	Dwf., bed	Moderate	Well-formed blooms
Prime Rose	1912	Yellow to apricot	Vigorous	Dwf., bed	Moderate	Large and well formed
Prince Charming	1915	Reddish-copp. and old gold	Vigorous	Dwf., bed	Moderate	Buds long and pointed
Prince de Bulgarie	1902	Pale rose and apricot	Vigorous	Dwf. st. bed, pot	Moderate	Fragrant
Princess Mary	1914	Crimson-scarlet	Vigorous	Dwf., stand.	Moderate	Gold Medal, fragrant
Principal A. H. Pirie	1910	Pink and salmon	Vigorous	Dwf., bed	Moderate	Free-flowering
Prince Englebert						
Princess Bonnie	1910	Scarlet and maroon	Vigorous	Dwf., bed	Moderate	Very large and full
Princess M. Mertchersky	1895	Vivid crimson	Vigorous	Dwf., bed, pot	Moderate	Long buds
	1903	Silvery-rose	Vigorous	Dwf. st. bed, ex.	Moderate	Fragrant

Roses and their Cultivation.

Hybrid Tea—continued.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Princesse M. Scherbatoff	1914	Buff-yellow	Vigorous	Dwf., bed, pot	Moderate	Very free-flowering
Queen Alexandra	1915	Yell. and salmon-pink	Very vig.	Pillar or S.wall	Light	Single-flowered
Queen Mary	1913	Yellow and rose carmine	Moderate	Dwf., st., bed	Moderate	Beautiful, Gold Medal
Queen of the Belgians	1915	Salmon-pink	Moderate	Dwf., bed	Moderate	Gold Medal, semi-doub
Queen of Fragrance	1915	Shell-pink and silver	Vigorous	Dwf., bed	Moderate	Very fragrant
Queen of Spain	1907	Pale flesh	Moderate	Dwf., st., ex.	Hard	Gold Medal rose
Radiance	1909	Carmine, salmon, and red	Vigorous	Dwf., bed	Moderate	Pretty
Rainbow	1891	Pink, striped carmine	Moderate	Dwf., st., bed	Light	A distinct novelty
Red Admiral	1913	Cerise-red	Vigorous	Dwf., bed	Moderate	Very free-flowering
Red Cross	1916	Or., crimson-scarlet	Vigorous	Dwf., bed	Moderate	Very free bloomer
Red Letter Day	1914	Crimson-scarlet	Vigorous	Dwf., st., bed	Moderate	Semi-dble., Gold Medal
Renée Wilmar-Urban	1907	Salmon-flesh, edged carmine	Vigorous	Dwf., bed	Moderate	Large, full, and good
Reine Marie Henriette	1878	Carmine	Climber	Pr., per., gr.	Little	Long buds
Reine Olga de Wurtemberg	1881	Bright crimson	Very vig	Pr. arch, W.wall	Very little	Semi-double
Rev. D. R. Williamson	1904	Dark crimson and maroon	Vigorous	Dwf., bed	Moderate	Large and full blooms
Rhea Reid	1908	Cherry crimson	Vigorous	Dwf., st., bed	Moderate	Deliciously fragrant
Richmond	1905	Pure red-scarlet	Vigorous	Dwf. st. bed, pt.	Hard	Fragrant
Do. Climbing	1912	Crimson	Climber	Pr. or arch	Little	Fragrant
Robert Huey	1911	Carmine-cerise and pink	Vigorous	Dwf., bed	Moderate	Fragrant
Robert Scott	1901	Rosy-pink	Vigorous	Dwf., bed	Moderate	Free-flowering
Robin Hood	1914	Rosy-scarlet	Vigorous	Dwf., bed	Moderate	Free-flowering
Rose du Barri	1911	Vivid rose	Vigorous	Dwf., bed	Light	Very fragrant
Rose Clop	1914	Rose, carmine, and white	Vigorous	Dwf., bed	Moderate	Free-flowering
Rose Queen	1911	Pink and yellow	Vigorous	Dwf., bed, pot	Moderate	Charming colour

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Rosette de la Légion d'Honneur	1896	Red and yellow	Very vig.	Pillar	Light	Frag., buttonhole rose
Rosita Mauri	1914	Rose-pink	Very vig.	Dwf., bed, st.	Moderate	Fragrant
Rosomane Gravereaux	1899	White and pink	Moderate	Dwf., bed, ex.	Moderate	Large and well shaped
Sallie	1915	Creamy-flesh	Very vig.	Bush or bed	Light	Good autumn rose
Sarah Bernhardt	1907	Scarlet-crimson and purple	Vigorous	Dwf., bed	Light	Semi-double
Seabird	1913	Primrose	Vigorous	Dwf., st., bed	Moderate	Free-flowering
Salmon Richmond	1912	Cherry salmon	Vigorous	Dwf. st. bed, pt.	Hard	A useful rose
Senateur Mascuraud	1909	Yellow	Moderate	Dwf., bed	Moderate	Attractive
Sheila Wilson	1910	Scarlet and yellow	Climber	Pillar	Little	Single-flowered
Simplicity	1909	White	Vigorous	Bush	Light	Single, Gold Medal
Souv. de E. Guillard	1913	Yellow and carmine	Vigorous	Dwf., bed	Moderate	Fragrant
Souv. de Georges Pernet	1916	Vivid deep crimson	Vigorous	Dwf., bed	Moderate	Flowers small
Souv. de Gustav Prat	1910	Sulphur-white	Vigorous	Dwf., bed, pot	Moderate	Continuous bloomer
Souvenir de M. de Zayas	1906	Vivid carmine	Vigorous	Dwf., st., bed	Moderate	Fragrant
Souvenir de M. Perdrille	1914	Rosy-white and salmon	Vigorous	Dwf., bed	Moderate	Free-flowering
Souv. de Harry Graham	1915	Car., cream, and white	Vigorous	Dwf., bed	Moderate	Very fragrant
Souv. de Joseph Metral	1818	Cherry-red	Climber	Pr. or arch	Little	Good red rose
Souvenir du President Carnot	1895	Rosy-flesh and white	Vigorous	Dwf., st., bed	Moderate	Long buds
Souvenir de Perigueux	1914	Carmine-red	Vigorous	Dwf., bed	Moderate	Long pointed buds
St. Helena	1912	Cream, yellow, and pink	Vigorous	Dwf. st. bed, ex.	Moderate	Gold Medal rose
Sunbeam	1912	Orange-yellow	Vigorous	Dwf. st. bed, pt.	Moderate	Good buttonhole rose
Sunburst	1912	Orange-yellow to cream	Vigorous	Dwf., bed, pot	Moderate	Long pointed buds
Do. Climbing	1912	Orange-yellow	Very vig.	Pillar, S. wall	Very little	Long buds, stiff stems
Sybil	1914	Clear silvery-pink	Vigorous	Dwf., bed	Moderate	Very free bloomer

Roses and their Cultivation.

Hybrid Tea—continued.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Theresa	1909	Orange-apricot to pink	Vigorous	Dwf., bed	Moderate	Semi-double, fragrant
Tipperary	1915	Golden-yellow	Vigorous	Dwf., bed	Moderate	Gold Medal, fragrant
Tito Hérogan	1911	Salmon-pink	Vigorous	Dwf., bed	Moderate	Continuous blooming
Ulster Gem	1915	Primrose-yellow	Vigorous	Dwf., bed	Moderate	Single, very pretty
Ulster Volunteer	1915	Crimson-scarlet	Vigorous	Dwf., bed	Moderate	Gold Medal, single
Vanessa	1914	Pink, brown centre	Vigorous	Bush	Light	Semi-single
Verna Mackay	1913	Ivory-sulphur buff	Vigorous	Dwf., bed	Moderate	Free-flowering, fragrant
Viscount Carlou	1910	Carmine-pink and cream	Vigorous	Dwf., bed	Moderate	Fragrant
Viscountess Folkestone	1886	Creamy-white and flesh	Vigorous	Dwf. st. bed, pt.	Moderate	Very fragrant
W. C. Gaunt	1916	Vermilion-scarlet	Vigorous	Dwf., bed	Moderate	Tea-perfumed
W. E. Lippiat	1907	Crimson and maroon	Vigorous	Dwf. st. bed, ex.	Moderate	Fragrant
Walter Speed	1909	Lemon to white	Moderate	Dwf. st. bed, ex.	Moderate	High pointed centres
Waltham Climber	1885	Rosy-crimson	Climber	Rr. or arch	Little	Free-bloomer
Waltham Scarlet	1914	Crimson-scarlet	Vigorous	Dwf., bush	Light	Single-flowered
Warrior	1906	Crimson and blood-red	Vigorous	Dwf. st. bed, ex.	Moderate	Good autumn rose
W. F. Bennett	1886	Crimson	Vigorous	Dwf. st. bed, pt.	Moderate	Fragrant
White Killarney	1909	Pure white	Vigorous	Dwf. st. bed, pt.	Moderate	Fragrant
White Lady	1890	Creamy-white	Vigorous	Dwf., exhib.	Hard	Early-blooming
William Cooper	1914	Rich cake-red	Vigorous	Dwf., st., bed	Moderate	Very free-flowering
William Shean	1906	Pure pink and ochre	Vigorous	Dwf., st., exhib.	Moderate	Immense blooms
Yvonne Vacherot	1905	Porcelain white and pink	Moderate	Dwf., st., exhib.	Moderate	Long, pointed buds

Variety.	Intro-duced. When	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Anni Welter	1907	Dark-red	Vigorous	Dwf., bed	Moderate	Well mossed
Baron de Wassenær	1854	Bright red	Vigorous	Dwf., bed	Moderate	Pretty buds, well mossed
Blanche Moreau	1880	Pure white	Vigorous	Dwf., st.	Moderate	Well mossed, frag.
Celina	1855	Crimson	Vigorous	Dwf., bed	Moderate	Very distinct
Common Moss	1896	Pale rose	Vigorous	Dwf., st., bed	Moderate	Summer-flowering
Comtesse Murinais	1843	White	Vigorous	Dwf., bed	Moderate	Free-flowering
Crested Moss	1827	Bright rose	Vigorous	Dwf., bed	Moderate	Heavily mossed
Crimson Globe	1890	Deep crimson	Very vig.	Dwf., bed	Moderate	Very large, full flowers
Eugene Verdier	1873	Red and vermilion	Vigorous	Dwf., bed	Moderate	Well mossed
Gloire des Mosseuses	1852	Blush	Robust	Dwf., bed	Moderate	Very large flowers
Henry Martin	1862	Deep red	Vigorous	Dwf., bed	Moderate	Well mossed
James Veitch	1865	Violet and crimson	Moderate	Dwf., bed	Moderate	Large blooms
Laneii	1840	Crimson and purple	Vigorous	Dwf., bed	Moderate	Mildew proof
Little Gem	1880	Crimson	Moderate	Dwf., bed	Hard	Beautifully mossed
Mrs. W. Paul	—	Rose	Vigorous	Dwf., bed	Moderate	Prettily mossed
Nuits d'Young	1845	Dark crimson	Vigorous	Dwf., bed	Moderate	The darkest moss
Salet	1854	Rose and blush	Moderate	Dwf., bed	Moderate	Prettily mossed buds
White Bath	1810	Paper white	Moderate	Dwf., st., bed	Moderate	Best white moss
Zenobia	1892	Satin-pink	Vigorous	Dwf., bed	Moderate	Fragrant

MULTIFLORA OR RAMBLER.

Aglaia	1896	Pale yellow	Very vig.	Arch, pergola	Little	Shy blmg. when young
American Pillar	1909	Bright crimson	Very vig.	Pillar, arch, per.	Little	Single-flowered
Ariel Rambler	1910	Pink and copper	Vigorous	Arch or pillar	Little	Single-flowered
Arndt	1914	Flesh-pink	Vigorous	Pillar	Little	Semi-climber
Blush Rambler	1903	Blush	Very vig.	Arch, pillar, per.	Little	Very showy
Buttercup	1908	Yellow and lemon-white	Vigorous	Pillar, stand.	Little	Single-flowered

Roses and their Cultivation. Multiflora or Rambler—continued.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Ceres	1914	Blush and yellow	Very vig.	Arch, pillar	Little	Semi-double
Claire Jacquier	1888	Nankeen-yellow	Very vig.	Arch, per., S. wall	Little	Rather tender
Coronation	1912	Crimson, scarlet, and white	Very vig.	Arch, pillar, per.	Little	Very free-flowering
Crimson Rambler	1893	Crimson	Very vig.	Arch, pillar, per.	Little	Very free-flowering
Electra	1900	Yellow	Very vig.	Arch, pillar, per.	Little	Perpetual-flowering
Ethel	1912	Flesh-pink	Vigorous	Arch, pillar	Little	Profuse bloomer
Euphrosine	1896	Bright pink	Very vig.	Arch, pillar, per.	Little	Early-flowering
Fairy	1909	Snow-white	Very vig.	Arch, pillar, per.	Little	Single-flowered
Flower of Fairfield	1908	Crimson	Very vig.	Arch, pillar, per.	Little	Perpetual-flowering
Geisha	1914	Scarlet-crimson	Very vig.	Arch, pillar, per.	Little	Early-flowering
Hélène	1899	Mauve and yellow	Vigorous	Arch, pillar, per.	Little	Early-flowering
Leuchstern	1889	Rose and white	Very vig.	Pillar, arch, per.	Little	Single, early
Lyon Rambler	1909	Pink and carmine	Very vig.	Pillar, arch, per.	Little	Very showy
Millicent	1914	Rosy-pink and carmine	Very vig.	Pillar, arch, per.	Little	Large clusters
Mrs. W. H. Cutbush	1914	Pale pink	Vigorous	Climber, pillars	Very little	Showy
Mrs. F. W. Flight	1906	Pink and white	Vigorous	Pillar, arch, per.	Little	Semi-double
Oriflamme	1914	Rose and coppery-gold	Very vig.	Arch, pillar, per.	Little	Very free-flowering
Orleans Rose, climbing	1913	Rosy-red	Very vig.	Pillars	Little	Perpetual-flowering
Paradise	1906	Pink and white	Vigorous	Pillar, arch, per.	Little	Single, early
Pemberton Wte. Ramb.	1914	Pure white	Very vig.	Pillar, arch, per.	Little	Perpetual-flowering
Perpetual Thalia	1901	White	Vigorous	Pillar, per.	Little	Semi-dble., June to Oct.
Philadelphia Rambler	1903	Crimson	Very vig.	Pillar, arch, per.	Little	Very attractive
Polyantha grandiflora	1888	White	Very vig.	Pillar, arch, per.	Little	Single, free-flowering
Psyche	1899	Rosy-pink, salmon, and yel	Very vig.	Pillar, arch, per.	Little	Free-flowering
Purple East	1901	Rosy carmine, purple	Very vig.	Pillar, arch, per.	Little	Semi-double
Queen Alexandra	1901	Rich rose	Very vig.	Pillar, arch, per.	Little	Profuse bloomer
Rubin	1900	Deep crimson	Vigorous	Pillar, arch, per.	Little	Mid-season

Roses and their Cultivation. Multiflora or Rambler—continued.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Seven Sisters Rose	—	Rose, purple, and crimson	Vigorous	Arch, pillar	Little	An old rose
Silver Moon	1912	Silvery-white	Very vig.	Pergola	Little	Single-flowered
Starlight	1908	White and rose	Vigorous	Pillar, arch, per	Little	Single-flowered
Stella	1906	White, striped carmine	Vigorous	Arch, pillar	Little	Single-flowered
Sweet Lavender	1912	Mauve	Vigorous	Arch, pillar, per.	Little	Single, fragrant
Tausendschon	1906	Pink, rose, and carmine	Vigorous	Arch, pillar, per.	Little	Summer-flowering
Tea Rambler	1903	Coppery-pink	Very vig.	Plr., per. S. wall	Little	Free-blooming
Thalia	1895	Pure white	Very vig.	Arch, pillar, per.	Little	Single, late blooming
The Lion	1900	Rich crimson	Vigorous	Arch, pillar	Little	Very free-flowering
The Wallflower	1901	Rosy-crimson	Very vig.	Pr., arch, fence	Little	Late-flowering
Thousand Beauties	1906	Pink	Very vig.	Pillar, per.	Little	Flowers profusely
Tree Climber	1916	Blush	Rampant	Old trees, pergolas	Little	Continuous blooming
Trier	1904	Creamy-white	Vigorous	Pillar	Little	Single-flowered
Waltham Rambler	1903	Rosy-pink	Vigorous	Arch, pillar, per.	Little	Semi-double
Wedding Bells	1905	Shell-pink	Vigorous	Arch, pillar	Little	Single, fragrant
White Tausendschon	1913	Blush-white	Very vig.	Arch, pergola	Little	Semi-double
Winter Cheer	1914	Crimson	Very vig.	Arch, pillar	Little	

MUSK.

Daphne	1912	Rose-pink	Vigorous	Bush	Little	Semi-double
Madame d'Arblay	—	Flesh-white	Climber	Arch, pillar	Little	Very fragrant
Moschata alba	—	White	Climber	Arch, pergola	Little	Single, fragrant
Princesse de Nassau	1897	Creamy-white	Climber	Pillar, arch	Little	Fragrant
Queen of the Musks	1912	Creamy-white	Vigorous	Dwf., bed	Little	Perpetual-flowering
Snowstorm	1902	Pure white	Climber	Pillar	Little	Semi-double

Roses and their Cultivation.

NOISETTE.

Variety.	When Intro-duced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Aimée Vibert	1828	Pure white	Very vig.	Pr., per., W. wl.	Little	Good autumn rose
Adeline Vivand Murel	1890	Pale yellow	Vigorous	S. wall	Little	Very pretty, tender
Antoinette Massard	1914	Carmine-red and vermillion	Very vig.	Arch, pillar, per.	Little	Semi-double
Aliester Stella Gray	1894	Pale-yellow	Very vig.	Pillar, arch, per.	Little	Continuous bloomer
Boule de Neige	1867	Pure white	Very vig.	Stand, dwf., bed	Little	Free-flowering
Céline Forestier	1858	Sulphur yellow	Vigorous	Stand, S. wall	Little	Good autumn rose
Cloth of Gold	1843	Pure yellow	Vigorous	South wall	Little	Tender
Crepuscule	1904	Chamois-yellow and red	Vigorous	Pillar, arch	Little	Fragrant
Deprez à fleurs Jaunes	1838	Red, buff, and sulphur	Very vig.	Pillar	Little	Very fragrant
Fellenberg	1857	Rosy-crimson	Vigorous	Dwf., bed, hedge	Little	Very fragrant
Floribunda	1903	Rosy flesh	Vigorous	Df, st, bed, hedge	Moderate	Free-flowering
Fortune's Yellow	1845	Yellow and carmine	Very vig.	S. wall, grnhse.	Little	Semi-double
Golden Queen	1903	Golden-yellow and copper	Very vig.	St., df., pr., S. wl.	Little	Rapid grower
Lamarque	1830	White and lemon	Very vig.	South wall	Little	Fragrant
Lemon Pillar	1915	Lemon to lemon white	Very vig.	Pillars	Little	Gold Medal rose
L'Ideale	1887	Red and yellow	Very vig.	South wall	Little	Beautiful in bud
Mad. Alfred Carrière	1879	White and blush	Very vig.	Plr. ar. E. W. S. wl.	Little	Fragrant
Madame Carnot	1893	Yellow and copper	Vigorous	South wall	Little	Free-flowering
Mad. Caroline Kuster	1873	Yellow and rose	Vigorous	Dwarf, bed	Moderate	Free-blooming
Maréchal Niel	1864	Golden-yellow	Very vig.	Grnhse. climber	Little	Very fragrant
Ophirie	1844	Yellow and red	Very vig.	Pillar and S. wall	Little	Shy bloomer
Rève d'Or	1869	Buff-yellow	Very vig.	Arch plr. S. wall	Little	Good autumn rose
Solfatere	1843	Sulphur-yellow	Very vig.	South wall	Little	Fragrant
W. Allen Richardson	1878	Orange-yellow and white	Very vig.	St. plr. per. W. wl.	Little	Pretty buttonhole rose

Roses and their Cultivation. POLYANTHA OR POMPON.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Aennchen Muller	1906	Bright pink	Moderate	Df., edging, bed	Very little	Fragrant
Amaury Fonesca	1914	Pure white	Moderate	Dwarf, bed	Very little	Very free-flowering
Anne-Marie de Montravel	1879	White	Moderate	Df., edging, bed	Very little	Fragrant
Atropurpurea	1911	Purplish-red	Moderate	Df., edging, bed	Very little	Good dark variety
Baby Dorothy Perkins	1906	Clear pink	Moderate	Dwarf, bed	Very little	A profuse bloomer
Baby Elegance	1913	Salmon	Moderate	Dwarf, bed	Little	Single, pretty
Baby Tausendschon	1910	Soft pink	Moderate	Dwarf, bed	Very little	Pleasing and pretty
Blanche Rebabel	1899	Crimson and rose	Moderate	Df., edging, bed	Very little	Small-flowered
Bonny Belle	1913	Coppery-yellow	Moderate	Dwarf, bed	Little	Charming and dainty
Canarienvogel	1904	Yellow and orange	Vigorous	Dwarf, bed	Little	A lovely variety
Cecile Brunner	1880	Rose and pink	Moderate	Df., edging, bed	Very little	A dainty rose
Clara Stahl	1914	Rose	Vigorous	Dwarf, bed	Very little	Very large trusses
Coronet	1912	Yellow and rose	Vigorous	Dwarf, bed	Little	Very distinct
Cyrano	1914	Carmine, scarlet, and white	Moderate	Df., edging, bed	Very little	Very free-flowering
Danae	1913	Pale lemon	Vigorous	Dwarf, bed	Little	Semi-double
Dewdrop	1913	Deep cerise	Moderate	Dwarf, bed	Little	Very free
Edward VII.	1910	Pale pink and blush	Moderate	Df., edging, bed	Very little	Free-flowering
Eileen Low	1911	Rose and cream	Vigorous	Df., edging, bed	Very little	Pretty colour, free
Ellen Poulson	1912	Dark pink	Moderate	Dwf., bed, pot	Little	Fragrant, free
Etoile d'Or	1889	Citron and chrome-yellow	Moderate	Df., edging, bed	Very little	A pretty yellow
Eugénie Lamesch	1900	Orange-yellow to rose	Moderate	Df., edging, bed	Very little	Very large trusses
Georgie Elgar	1904	Coppery-yellow	Moderate	Dwarf, bed	Very little	Large trusses
Georges Fernet	1889	Rosy-peach and yellow	Moderate	Df., edging, bed	Very little	Free-blooming
Gloire des Polyanthas	1887	Rose and white	Moderate	Df., edging, bed	Very little	Large trusses
Golden Fairy	1889	Fawn-yellow	Moderate	Df., edging, bed	Very little	Very pretty
Jeanne d'Arc	1909	Milk-white	Moderate	Df., edging, bed	Very little	Good neat habit

Roses and their Cultivation. Polyantha or Pompon—continued.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Jean Soupert	1912	Carnation white	Moderate	Dwarf, bed	Very little	Very pretty variety
Jessie	1909	Crimson	Moderate	Dwarf, bed	Very little	Semi-double
Katherine Zeimet	1901	Pure white	Moderate	Df., edging, bed	Very little	Free-flowering
Klainer Alfred	1904	Orange and lemon	Moderate	Df., edging, bed	Very little	Pleasing colour
Lady Violet Henderson	—	Yellow to white	Vigorous	Dwarf, bed	Very little	Very fragrant
Leonie Lamesch	1900	Coppery-red and yellow	Moderate	Df., edging, bed	Very little	Fragrant
Le Ponceau	1912	Deep garnet	Moderate	Df., edging, bed	Very little	Rich colour
Mdlle. Suzanne Bidard	1914	Copper, rose, and salmon	Moderate	Dwf., bed, pot	Very little	Single-flowered
Ma Paquerette	1875	Pure white	Moderate	Dwf., bed, pot	Very little	Very free-flowering
Madame N. Levavasseur	1903	Rosy-crimson	Moderate	Df., edging, bed	Very little	Perpetual-flowering
Maman Turbat	1912	China-pink	Moderate	Df., edging, bed	Very little	Large clusters
Marie Pavie	1888	Pale flesh	Moderate	Df., edging, bed	Very little	Pretty
Meadow Sweet	1912	Salmon-pink	Moderate	Dwarf, bed	Very little	Semi-double
Merveille des Rouges	1912	Crimson and white	Moderate	Dwarf, bed	Very little	Fine bedding variety
Mignonette	1881	Rosy-pink	Moderate	Dwarf, bed	Little	Very pretty and free
Mosella	1896	White and yellow	Vigorous	Dwf., bed, pot	Little	Very floriferous
Mrs. W. H. Cutbush	1907	Rich deep pink	Vigorous	Dwf., bed, pot	Little	Perpetual-flowering
Orleans Rose	1909	Rosy-red and peach	Vigorous	Dwf., bed, pot	Little	Immense trusses
Perle d'Or	1883	Yellow and orange	Moderate	Df., edging, bed	Very little	Dainty and beautiful
Perle des Rouges	1897	Crimson and cerise	Moderate	Df., edging, bed	Very little	Attractive variety
Petit Constant	1899	Red and orange	Moderate	Df., edging, bed	Very little	Very beautiful
Philippine Lambert	1902	Pink, flesh, carmine	Moderate	Df., edging, bed	Very little	Large clusters
Phyllis	—	Carmine-pink	Moderate	Df., edging, bed	Very little	Lovely for massing
Red Pet	1888	Dark crimson	Vigorous	Dwarf, bed	Little	Miniature flowers
Rodhatte	1912	Cherry-red	Moderate	Df., edging, bed	Very little	Good for cutting
Rosalind	1907	Bright pink	Moderate	Df., edging, bed	Very little	Large trusses
Schneewitchen	1901	Ivory-white	Moderate	Dwarf, bed	Very little	Semi-double

Roses and their Cultivation.

Polyantha or Pompon—*continued.*

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Suaie	1913	Peach, salmon, and red	Moderate	Dwarf, bed	Very little	Large-flowered
Tip-Top	1909	Copper, orange, and purple	Moderate	Df., edging, bed	Very little	Very beautiful
White Pet	1879	Pure white	Moderate	Df., edging, pot	Very little	Small-flowered
Yvonne Rabier	1911	Pure white and sulphur	Moderate	Df., edging, bed	Very little	Evergreen foliage

PROVENCE SECTION.

Belle des Jardins	1873	Purple, striped white	Vigorous	Bush	Moderate	Fragrant
Burgundy	—	Deep red	Moderate	Dwf., bed	Moderate	Small and double, frag.
Cabbage Rose	1596	Rosy-pink	Vigorous	St., dwf., bed	Moderate	Very fragrant
Command. Beaurepaire	1875	Rose, pur., violet, and white	Vigorous	Dwf. or bush	Moderate	Fragrant
De Meaux	1814	Lilac	Moderate	Dwf., bed	Moderate	Small, fragrant
Georges Vibert	1853	Reddish-purple and white	Vigorous	Bush	Moderate	Fragrant
Geilliet Flamand	1843	Rose, white, and red	Vigorous	Dwf. or bush	Moderate	Foliage very dark
Perle des Panachées	1845	White, striped lilac	Vigorous	Dwf. or bush	Moderate	Fragrant
Rosa Mundi	—	Red, striped white	Vigorous	Dwf. or bush	Moderate	Fragrant
Village Maid	1845	White, rose, and purple	Vigorous	Dwf. or bush	Moderate	Fragrant
York and Lancaster	—	White, striped red	Vigorous	Dwf. or bush	Moderate	Fragrant
White de Meaux	—	White	Moderate	Dwf., bed	Moderate	Small, fragrant
White Provence	1810	White	Moderate	Dwf., st., bed	Moderate	Fragrant

Roses and their Cultivation.

RUGOSA.

Variety.	When introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Alba	1784	Pure white	Vigorous	St., bush, hedge	Very little	Single, fragrant
America	1895	Crimson-lake	Vigorous	Bush, hedge	Very little	Single-flowered
Atropurpurea	1900	Maroon-crimson	Vigorous	Bush, hedge	Very little	Single-flowered
Blanc Double de Coubert	1892	Pure white	Vigorous	Bush, hedge	Very little	Double-flowered
Calocarpa	1900	Rose	Vigorous	Bush, hedge	Very little	Fragrant, single
Carmen	1906	Crimson-scarlet	Vigorous	Bush	Very little	Single, fragrant
Conrad F. Meyer	1900	Silvery-rose	Climber	Bush, pillar, per.	Little	Double, fragrant
Daniel Lesueur	1908	Yellow and gold	Vigorous	Bush	Very little	Double-flowered
Delicata	1899	Soft rose	Vigorous	Bush, hedge	Very little	Double-flowered
Dolly Varden	1914	Apricot, pink, and yellow	Vigorous	Bush	Very little	Continuous-flowering
Fimbriata	1891	White and blush	Vigorous	Bush, hedge	Very little	Semi-double
Georges Cain	1909	Rich crimson	Vigorous	Bush, hedge	Very little	Single-flowered
Madame Georges Bruant	1887	White	Vigorous	Bush, hedge	Very little	Double-flowered
Mrs. Anthony Waterer	1898	Deep red	Vigorous	Bush, hedge	Very little	Semi-dbl., fragrant
Nova Zembla	1907	White	Very vig.	Bush, hedge	Very little	Double, fragrant
Repens alba	1903	White	Very vig.	Weeping, st., bk.	Very little	Single-flowered
Rose Apples	1906	Carmine-rose	Vigorous	Bush, hedge	Very little	Semi-double
Rose à Parfum de l'Hay	1904	Dark red	Vigorous	Bush, hedge	Very little	Double, fragrant
Rubra	1892	Reddish-violet	Vigorous	Bush, hedge	Very little	Single, fragrant
Souvenir de Pierre Leperdrieux	1896	Bright red	Vigorous	Bush, hedge	Very little	Double-flowered

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Alexander Hill Gray	1911	Lemon-yellow	Vigorous	Df. st. ex. bed, pot	Moderate	Gold Medal, fragrant
Alexandra Zarifi	1910	Terra-cotta	Vigorous	Dwarf, bed	Moderate	Single-flowered
Alice de Rothschild	1910	Citron-yellow	Vigorous	Df., bed, exhib.	Moderate	Fragrant
Amazone	1872	Golden-yellow	Moderate	Dwarf, bed	Moderate	Long pointed buds
Ann Chartron	1897	Cream, carmine, rose	Vigorous	Dwarf, bed	Light	Long buds
Anna Olivier	1872	Cream and buff	Vigorous	Df., st., bed, ex.	Moderate	Fragrant
Auguste Comte	1896	Rose and cream	Vigorous	Df., bed, exhib.	Moderate	Free-flowering, good
Belle Lyonnaise	1869	Canary-yellow	Climber	Pillar, st.	Little	Fragrant
Beauté Inconstante	1893	Copper, carmine, yellow	Vigorous	Dwf., stand, bed	Moderate	A charming rose
Beryl	1898	Golden-yellow	Moderate	Dwarf, bed	Hard	Frgnt., buttonhole rose
Billiard et Barré	1899	Golden-yellow	Very vig.	Pillar or W. wall	Light	Very attractive, free
Bardou Job	1887	Crimson	Climber	South wall	Little	Semi-double
Boadicea	1901	Peach, pink, violet, rose	Vigorous	Dwf., stand, bed	Hard	Large stiff petals
Bouquet d'Or	1872	Buff-yellow	Climber	Pillar, E. wall	Little	Fragrant
Bridesmaid	1890	Bright pink	Moderate	Df., st., ex. pot	Hard	Good for forcing
Catherine Mermet	1869	Rosy-flesh	Moderate	Df., st., ex., bed	Hard	Very free-flowering
Do. Climbing	1912	Rosy-flesh	Very vig.	Pillar, W. wall	Little	Charming rose
Cleopatra	1889	Cream, flesh, and rose	Moderate	Df., st., exhib.	Hard	Long pointed buds
Comtesse de Nadaillac	1871	Peach, apricot, and copper	Moderate	Dwf., st., exhib.	Moderate	Perfect flowers, tender
Comtesse Festetics						
Comtesse Maggie	1899	Carmine and copper	Moderate	Dwf., stand, bed	Moderate	Charming colour
Hamilton						
Starznska	1911	Rose, red, and yellow	Vigorous	Dwarf, bed	Moderate	Free-flowering
Corallina	1901	Rosy-crimson	Vigorous	Dwf., stand, bed	Moderate	Good autumn rose
Devoniensis	1838	Creamy-white, blush	Moderate	Dwf., stand, bed	Hard	Very fragrant
Do. Climbing	1858	Creamy-white	Vigorous	South wall	Little	Fragrant, tender
Dr. Felix Guyon	1902	Orange and apricot	Vigorous	Dwarf, bed	Moderate	Large full flowers

Roses and their Cultivation.

Tea-scented—continued.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Dr. Grill	1886	Rose and copper	Vigorous	Dwf., stand, bed	Moderate	Free-flowering
Dr. Rouges	1894	Bronze-red	Climber	Pillar, S. wall	Little	Uncommon colour
Duchesse d'Auerstadt	1887	Yellow	Climber	Pillar, S. wall	Little	Warm-season rose
Enchantress	1896	Creamy-white and buff	Vigorous	Dwf., stand, bed	Moderate	Very free-flowering
Ernest Metz	1888	Salmon-rose	Vigorous	Dwf., stand, bed	Hard	Rather tender
Ethel Brownlow	1887	Flesh and bronzy-yellow	Moderate	Df., st., bed, pot	Hard	Best under glass
Etoile de Lyon	1881	Sulphur-yellow	Vigorous	Df., bed, exhib.	Moderate	Best in warm seasons
E. Veyrat Hermanos	1895	Apricot and carmine	Climber	South wall	Little	Unreliable rose
Francisca Kruger	1879	Coppery-yellow and peach	Vigorous	Dwf., stand, bed	Moderate	Free-flowering
François Dubreuil	1895	Blood-red and maroon	Vigorous	Dwf., stand, bed	Moderate	Very free-flowering
Gabrielle Thierrand	1913	Carmine, rose, and chamois	Vigorous	Dwarf, bed	Moderate	Fragrant
Général Schablikine	1879	Coppery-red	Vigorous	Dwf., bed	Light	Very free-flowering
Général Gallieni	1901	Cerise and coppery-orange	Vigorous	Dwf., bed	Moderate	Continuous bloomer
Gloire de Dijon	1859	Buff, salmon, yellow	Very vig.	Df. st. plr. E. w.	Light	Very fragrant
Golden Gate	1892	Creamy-white and yellow	Moderate	Dwf., stand, bed	Hard	Free-flowering
Gustave Nabonnand	1839	Flesh and rose	Vigorous	Dwf., st., bed	Light	Very fragrant
Goubult	1843	Rosy-buff and fawn	Vigorous	Dwf., bed	Light	Fragrant
Harry Kirk	1907	Bright sulphur-yellow	Vigorous	Dwf., st., bed	Moderate	Gold Medal rose, frag.
Henriette de Beauvenau	1887	Yellow	Climber	South wall	Little	Free-bloomer
Homère	1859	Pink and salmon	Vigorous	Dwf., st., bed	Light	Good in autumn
Hon. Edith Gifford	1882	White and flesh	Vigorous	Dwf., st., bed	Moderate	Free-flowering
Hugo Roller	1908	Lemon-yellow and rose	Moderate	Dwf., bed	Hard	Free-flowering
Innocente Pirola	1878	Cream to pink	Moderate	Dwf., st., ex.	Moderate	Large, beautiful form
Irish Pride	1903	Eccru, rose and gold	Vigorous	Dwf., bed	Moderate	Single-flowerer
Irish Star	1904	Rose du Barri	Vigorous	Dwf., bed	Moderate	Single-flowered
Isabella Sprunt	1867	Lemon-yellow	Moderate	Dwf. st. bed, pot	Moderate	Lovely buttonhole rose
Jean Ducher	1874	Yellow and salmon	Vigorous	Dwf., st., bed	Moderate	Large and full

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Lady Hillingdon	1910	Apricot-yellow	Vigorous	Dwf. st., bed, pot	Moderate	Gold Medal rose
Lady Mary Corry	1900	Golden-yellow	Vigorous	Dwf., st., bed, ex.	Moderate	Free-flowering
Lady Plymouth	1914	Cream	Vigorous	Dwf., exhib., pot	Hard	Gold Medal rose
Lady Roberts	1902	Reddish-apricot	Vigorous	Dwf. st., bed, pot	Moderate	Gold Medal rose
Lena	1906	Apricot and primrose	Moderate	Dwf., bed	Hard	Long pointed buds
Little Dorrit	1912	Peach and rose	Vigorous	Dwf., bed	Moderate	Very free-flowering
Lucy Bayer	1913	Crimson and rose	Vigorous	Dwf., bed	Moderate	Very floriferous
Lucy Carnegie	1888	Carmine, rose, and yellow	Vigorous	Dwf., bed	Moderate	Very free-blooming
Ma Capucine	1878	Bronzy-yellow and red	Moderate	Dwf., bed	Hard	Good buttonhole rose
Madame Antoinette Mari	1902	Rose and white	Vigorous	Dwf., st., bed	Light	Good autumn rose
Madame Berkeley	1899	Salmon-pink and buff	Vigorous	Dwf., bed	Moderate	Continuous bloomer
Madame Bérard	1870	Fawn-yellow and copper	Climber	St., pr., E. wall	Little	Very fragrant
Madame Bravy	1848	White and pink	Vigorous	Dwf., st., bed	Moderate	Large, full, and pretty
Madame Charles	1864	Bright apricot	Moderate	Dwf., bed, pot	Moderate	Good buttonhole rose
Mad. Chédane-						
Guinoisseau	1880	Bright yellow	Moderate	Dwf., st., bed	Moderate	Pretty buttonhole rose
Mad. Constant Soupert	1906	Yellow and peach	Moderate	Dwf., st., ex., pot	Hard	Large, pointed blooms
Madame Cusin	1881	Violet, rose and yellow	Moderate	Dwf., st., bed	Moderate	Fragrant
Madame de Watteville	1883	Lemon and rosy-pink	Moderate	Dwf., st., ex., bed	Moderate	Rather tender
Do. Climbing	1902	Salmon, white, and pink	Climber	South wall	Little	Tender rose
Mad. Ed. Sablayrolles	1906	Yellow and orange	Vigorous	Dwf., st., ex., bed	Moderate	Large and full
Madame Falcot	1858	Apricot	Vigorous	Dwf., st., bd, pt.	Moderate	Buttonhole rose
Madame Hoete	1887	Lemon-yellow	Vigorous	Df. st. bd, ex. pt.	Moderate	Fragrant
Madame Jean Dupuy	1902	Yellow and rose	Vigorous	Dwf., st., bed	Light	Good buttonhole rose
Mad. Jules Graveaux	1901	Flesh and yellow	Very vig.	St., pr., S. wall	Light	Free-flowering
Madame Lambert	1877	Salmon-rose to red	Vigorous	Dwf., st., bed	Moderate	Good autumn rose
Mad. Leon Constantin	1908	Rose and salmon	Vigorous	Dwf., bed	Moderate	Very large flowers

Roses and their Cultivation.

Tea-scented—continued.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Madame Pierre Cochet	1891	Orange-yellow	Very vig.	Stand, pillar	Little	Rather tender
Mad. Pal Varin-Bernier	1906	Melon-yellow	Vigorous	Dwf., bed	Moderate	Very free-flowering
Madame Vermorel	1902	Coppery-yellow to red	Vigorous	Dwf., st., bed	Moderate	Blooms on long stems
Maman Cochet	1895	Flesh and salmon-rose	Vigorous	Dwf. st. bed, ex.	Light	A handsome rose
Marie van Houtte	1871	Lemon-yellow and rose	Vigorous	Df. st. bd. S. wall	Light	Very fragrant
Marquise de Moris	1814	Rose and salmon	Vigorous	Dwf., bed	Moderate	Semi-double
Marquise de Vivens	1855	Car.-rose, yellow, and white	Moderate	Dwf., bed	Moderate	Buttonhole rose
Medea	1891	Lemon-yellow	Vigorous	St., dwf., ex.	Moderate	Best in warm seasons
Mets	1898	Crushed strawberry and yel.	Moderate	Dwf., bed	Hard	Long pointed buds
MollySharmanCrawford	1908	Eau-de-nil white	Vigorous	Dwf. st. bed, ex.	Moderate	High-centred blooms
Morning Glow	1902	Rose, crimson, or fawn	Vigorous	Dwf., bed	Moderate	Exquisite colour
Mrs. Alfred Westmacott	1909	White, rose, and yellow	Vigorous	Dwf., bed, exhib	Moderate	Long pointed buds
Mrs. B. R. Cant	1901	Rose and buff	Vigorous	Dwf. st. bed, ex.	Light	Gold Medal, frag.
Mrs. Campbell Hall	1914	Creamy-buff and rose car.	Vigorous	Dwf., bed, exhib	Moderate	Gold Medal rose, frag.
Mrs. Dudley Cross	1907	Chamois-yellow to rose	Vigorous	Dwf. st. bed, ex.	Moderate	Good in autumn
Mr. Edward Mawley	1899	Pink and carmine	Moderate	Dwf., st., ex.	Moderate	Gold Medal, frag.
Mrs. Foley Hobbs	1910	Ivory-white and pink	Vigorous	Dwf., st., ex.	Moderate	Gold Medal, frag.
Mrs. H. Hawksworth	1912	Creamy-white	Moderate	Dwf., st., bed	Moderate	Fragrant
Mrs. Herbert Stevens	1910	White and peach	Vigorous	Dwf. st. bed, pt.	Moderate	Gold Medal rose
Mrs. Hubert Taylor	1909	Blush-pink, ivory-white	Vigorous	Dwf. st. bed, ex.	Moderate	Gold Medal rose
Mrs. Myles Kennedy	1906	Creamy-white	Vigorous	Dwf. st. bed, ex.	Moderate	Gold Medal rose
Mrs. Sophia Neate	1908	Salmon to pink	Vigorous	Dwf. st. bed, ex.	Moderate	A good rose
Mrs. S. Treseder	1903	Lemon-yellow	Vigorous	Dwf., st., bed	Moderate	Sport frm. Anna Olivier
Mrs. S. T. Wright	1914	Old gold, rose-pink, and or.	Vigorous	Dwf., st., bed	Moderate	Novel colour, fragrant
Muriel Grahame	1896	Pale cream	Moderate	Dwf., st., ex.	Hard	Gold Medal rose
Niphotos	1844	Pure white	Moderate	Greenhouse	Very little	Buttonhole rose
Do. Climbing	1859	White	Very vig.	Climber	Little	Buttonhole rose

Tea-scented—continued.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Nita Weldon	1909	White and blush	Vigorous	Dwf., st., bed	Moderate	Gold Medal rose
Noëlla Nabonnand	1900	Crimson-carmine	Very vig.	Plr.S.orW.wall	Little	Fragrant
Papillon	1882	Pink white, and copper	Climber	Pillar, arch	Little	Attractive
Paula	1908	Sulphur-yellow	Vigorous	Dwf., bed	Moderate	Long pointed buds
Peace	1902	Lemon-yellow	Vigorous	Dwf., st., bed	Light	Continuous bloomer
Pèrle des Jardins	1891	Canary-yellow	Vigorous	Dwf., st., bed	Moderate	Good bedding rose
Do. Climbing	1887	Straw-yellow	Climber	Greenhouse	Little	Buttonhole rose
Princess Beatrice	1887	Yellow and rose	Vigorous	Dwf., st., bed	Hard	Free-blooming
Princesse de Sagan	1887	Crimson-scarlet	Moderate	Dwf., bed	Moderate	Good dark Tea rose
Raoul Chauvry	1897	Yellow and apricot	Vigorous	Dwf., bed	Moderate	Good for massing
Reichsgraf F.Kesselstadt	1899	White, copper, and rose	Vigorous	Dwf., bed	Moderate	Charm. decorative rose
Recuerdo de Ant. Peluffo	1911	Yellow and pink	Vigorous	Dwf., bed	Moderate	Strong hardy Tea
Rubens	1859	White and creamy-rose	Moderate	Dwf. st. bed, ex.	Moderate	Hardy, free-flowering
Safrano	1839	Apricot-yellow	Moderate	Dwf. st. bed, pt.	Hard	Buttonhole rose
Socrates	1859	Rose and apricot	Vigorous	Dwf., bed	Moderate	Free-flowering
Souv. de Catherine						
Guillot	1896	Copper, car., and orange	Moderate	Dwf., bed	Moderate	Poor grower
Souv. de Elise Vardon	1854	Creamy-white and rose	Moderate	Dwf., st., exhib.	Hard	Bronzy foliage
Souv. de J. B. Guillot	1898	Orange, car., and yellow	Vigorous	Dwf., bed	Hard	Attractive
Souv. de Pierre Notting	1902	Apricot-yellow and orange	Vigorous	Dwf. st. bed, ex.	Moderate	Gold Medal rose
Do. Climbing	1912	Ap., yell., orange	Very vig.	S. wall	Little	Long buds
Souv. de S. A. Prince	1889	Pure white	Moderate	Dwf. st. bed, ex.	Moderate	Gold Medal rose
Souv. de Stella Gray	1907	Orange, yell., sal., and crim.	Moderate	Dwf., st., bed	Hard	Novel in colour
Souv. de William						
Robinson	1900	Fawn, pink, and yellow	Moderate	Dwf., bed	Moderate	Charming colour
Souv. de Thérèse Levet	1882	Crimson	Moderate	Dwf. st. bed, ex.	Moderate	Long buds
Souv. de Leonie Viennot	1878	Yellow and amber	Climber	Pr. and S. wall	Little	Free-flowering

Roses and their Cultivation.

Tea-scented—continued.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Souvenir d'un Ami	1846	Salmon and rose	Vigorous	Dwf. st. bed, ex.	Moderate	Hardy, free-flowering
Sulphurea	1900	Sulphur-yellow	Moderate	Dwf., bed	Moderate	Continuous bloomer
Sunrise	1899	Carmine, fawn, and salmon	Moderate	Dwf., st., pot	Hard	Buttonhole rose
Sunset	1884	Apricot and yellow	Vigorous	Dwf., st., bed	Moderate	Beautiful in bud
Tea Rambler	1902	Copper, sal., and pink	Climber	Pr., arch, per.	Little	Very fragrant
The Bride	1885	White to lemon	Moderate	Dwf. st. ex. pt.	Hard	High pointed centres
Titania	1915	Coppery crimson	Vigorous	Dwf., bed	Moderate	Gold Medal rose
Vanity	1910	Canary-yellow	Vigorous	Dwf., bed	Hard	Long elegant buds
Vicomtesse R. de Savigny	1900	Dark rose to rosy-gold	Vigorous	Dwf., bed	Moderate	Continuous bloomer
Warrior	1915	Scarlet-crimson	Vigorous	Dwarf, beds	Little	Very free flowering
White Maman Cochet	1898	White to lemon	Vigorous	Dwf. st. bed, ex.	Light	Gold Medal rose
W. R. Smith	1908	Creamy-white, rosy-pink	Vigorous	Dwf. st. bed, ex.	Moderate	Large, full blooms

WICHURAIANA.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Alberic Barbier	1902	Creamy-white and yellow	Very vig.	Arches, st., per.	Very little	Semi-double, early
Alexander Girault	1907	Rich carmine	Very vig.	Arches, pr., per.	Very little	Double, very large
American Beauty	1908	Rich rosy-pink	Very vig.	Arches, pr., per.	Very little	Double, late-flowering
Auguste Barbier	1902	Violet-lilac and white	Very vig.	Arches, pr., per.	Very little	Semi-double, early
Aviateur Bleriot	1910	Saffron-yellow	Very vig.	Arches, pr., per.	Very little	Double, early-flowering
Braiwick Charm	1914	Orange to white	Very vig.	Arches, pr., per.	Very little	Double, very fragrant
Casmir Moulle	1911	Purplish-rose and pink	Very vig.	Arches, pr., per.	Very little	Double, late-flowering
Chatillon Rambler	1913	Pink and flesh	Very vig.	Arch, pillars, per.	Little	Very beautiful
Christian Curle	1909	Flesh-pink	Very vig.	Arches, pr., per.	Very little	Double, late-flowering

Variety.	When Intro-duced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Coronation	1912	Crimson and white	Very vig.	Pergola, st.	Very little	Double, early
Debutante	1905	Soft pink	Very vig.	Arches, st., per.	Very little	Semi-double, July to Oct.
De Candolle	1913	Yellow to salmon	Very vig.	Arches, pr., per.	Very little	Double, large panicles
Diabolo	1909	Dark purple and vivid red	Moderate	Arches, pillars	Very little	Semi-double, late
Dorothy Dennison	1909	Shell-pink	Very vig.	Arches, st., per.	Very little	Double, late-flowering
Dorothy Perkins	1902	Soft pink	Very vig.	Arches, st., per.	Very little	Double, late-flowering
Edmund Proust	1903	Coppery carmine	Very vig.	Arches, pr., per.	Very little	Double, early-flowering
Eliza Robichon	1903	Pale yellow	Very vig.	Arches, pr., per.	Very little	Semi-double, early
Emily Gray	1916	Rich yellow	Very vig.	Pillar or arch	Little	Gold Medal rose
Ethel	1912	Flesh-pink	Very vig.	Arch or pergola	Little	Semi-double
Evangeline	1907	White and pink	Very vig.	Arches, st., per.	Very little	Single, late, fragrant
Evergreen Gem	1899	Buff to white	Very vig.	Arches, pr., per.	Very little	Double, early, fragrant
Excelsa	1909	Bright scarlet	Very vig.	Arches, st., per.	Very little	Double, late-flowering
Flame	1911	Salmon-pink	Very vig.	Arches, pr., per.	Very little	Semi-double
François Guillot	1905	Creamy-white	Very vig.	Arches, pr., per.	Very little	Double, early-flowering
François Juranville	1906	Bright rose	Very vig.	Arches, pr., per.	Very little	Double, early-flowering
Gardenia	1900	Yellow to cream	Very vig.	Arches, pr., per.	Very little	Double, early-flowering
Gerbe Rose	1904	Pink	Very vig.	Arches, pr., per.	Very little	Double, late, fragrant
Hiawatha	1905	Crimson and white	Very vig.	Arches, st., per.	Very little	Single, late-flowering
Hurst Beauty	1916	Light pink	Very vig.	Arch, pergola	Little	Very free-flowering
Hurst Rambler	1916	Creamy-yellow	Very vig.	Arch, pergola	Little	Highly fragrant
Jean Geuchard	1905	Coppery-car. and salmon	Very vig.	Arches, pr., per.	Very little	Double, early-flowering
Jersey Beauty	1899	Yellow to cream	Very vig.	Arches, st., per.	Very little	Single, early-flowering
Joseph Billiard	1905	Carmine and yellow	Very vig.	Arches, pr., per.	Very little	Single, early-flowering
Joseph Lamy	1906	White, yellow, and pink	Very vig.	Arches, pr., per.	Very little	Double, early-flowering
Jules Levacheur	1908	Silvery-pink	Very vig.	Arches, pr., per.	Very little	Double, early-flowering
Klondyke	1911	Yellow to primrose	Very vig.	Arches pr., per.	Very little	Double, early-flowering
Lady Blanche	1913	Pure white	Very vig.	Arch or pergola	Little	Evergreen foliage

Roses and their Cultivation.

Wichuraiana—continued.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Lady Gay	1903	Rich rose	Very vig.	Arches, pr., per.	Very little	Double, late-flowering
Lady Godiva	1908	Pale-pink	Very vig.	Arches, st., per.	Very little	Double, late-flowering
Le Mexique	1913	Silvery rose	Very vig.	Arches, pr., per.	Very little	Double, perpet.-flowering
Leontine Gervais	1904	Salmon, rose, and yellow	Very vig.	Arches, st. per.	Very little	Double, early, fragrant
Manda's Triumph	1897	White	Very vig.	Arches, pr., per.	Very little	Double, early
Milky Way	1909	White	Very vig.	Arch, pillar, per.	Very little	Single, mid-season
Minnehaha	1905	Soft pink	Very vig.	Arch, pr., per.	Very little	Double, late-flowering
Madame Alice Garnier	1907	Yellow and pale-pink	Very vig.	Arch, st. per.	Very little	Double, late-flowering
Madame Portier-Durel	1910	White	Very vig.	Pillar, per.	Very little	Highly fragrant
Miss Flora Milton	1913	Pale rose	Very vig.	Arch or pergola	Little	Single-flowered
Mrs. M. H. Walsh	1913	Milk-white	Very vig.	Arch, pr., per.	Very little	Double, best white var.
Paul Transon	1902	Rose	Very vig.	Arch, st., per.	Very little	Double, early, frag.
Paul's Scarlet Climber	1915	Scarlet	Very vig.	Arches, pr., per.	Very little	Gold Medal rose
Pink Roamer	1902	Pink and silvery-white	Very vig.	Arches, pr., per.	Very little	Single, early-flowering
Pink Wichuraiana	—	Bright rose	Very vig.	Arch, pr., per.	Very little	Single, early-flowering
René André	1902	Saffron-yellow or orange-red	Very vig.	Arch, pr., per.	Very little	Double, early, frag.
Renee Danielle	1914	Yellow to white	Very vig.	Arch, pr., per.	Very little	Double, very hardy
Ruby Queen	1899	Scarlet carmine to blush	Very vig.	Arch, pr., per.	Very little	Semi-double, early
Rubra	1901	Scarlet, or.-red, and white	Very vig.	Arch, pr., per.	Very little	Single, late-flowering
Shalimar	1914	Creamy-blush and rose	Very vig.	Arch, pr., per.	Very little	Double, early
Showers of Gold	1910	Golden-yellow	Very vig.	Arch, pr., per.	Very little	Double, late-flowering
Sodenia	1911	Scarlet-red	Very vig.	Arch, pr., per.	Very little	Double, early
Sonningdean	1916	Lemon-white	Very vig.	Arch, pergola	Little	Very fragrant
Source d'Or	1913	Golden-yellow	Very vig.	Arch, pr., per.	Very little	Double, very beautiful
Star of Hurst	1916	White, single	Very vig.	Arch, pergola	Little	Very fragrant
Sylvia	1911	Lemon-yellow to white	Very vig.	Arch, pr., per.	Very little	Double, July to Oct.
The Farquhar	1903	Pink to white	Very vig.	Arch, pr., per.	Very little	Double, late-flowering
Valentine Beaulieu	1904	Salmon-pink and orange	Very vig.	Arch, pr., per.	Very little	Double, early
White Dorothy	1908	White	Very vig.	Arch, st. per.	Very little	Double, late-flowering

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Agate	1909	Yellow	Moderate	Dwf., bed	Very little	Sturdy grower, free
Amber	1909	Amber-yellow	Moderate	Dwf., bed	Very little	Single, tiny buds
Iceberg	1909	Pure white	Moderate	Dwf., bed	Very little	Perpetual-flowering
Little Meg	1916	White	Moderate	Dwf., beds	Very little	Neat grower
Seashell	1910	Pearl-white	Moderate	Dwf., bed	Very little	Semi-double or single
Topaz	1909	Yellow to amber	Moderate	Dwf., bed	Very little	Perpetual-flowering

VARIOUS SPECIES AND HYBRIDS.

Anemone	—	Silvery rose-pink	Very vig.	Pillar, arch	Very little	Single-flowered, large
Anemonæflora	1845	White	Vigorous	Pillar	Very little	Semi-double, small
Alberti	—	Yellow	Vigorous	Bush	Very little	Single-flowered
Altaica	—	Lemon-white	Vigorous	Bush	Very little	Black heps, single
Andersoni	—	Pink	Vigorous	Bush	Very little	Single, pretty
Berberifolia	—	Yellow and chocolate	Vigorous	Bush, S. wall	Very little	Single-flowered
Beggeriana	1888	White	Vigorous	Bush, S. wall	Very little	Single-flowered
Bracteata	1795	White	Moderate	S. wall	Very little	Macartney rose, single
Cinnamonia	—	Pink	Vigorous	Bush	Very little	Single-flowered
Hispida	—	Lemon-white	Vigorous	Bush	Very little	Single-flowered
Hugonis	1910	Brilliant yellow	Vigorous	Bush	Very little	Single, grey foliage
Humilis	—	Pink	Moderate	Rockery	Very little	Creeping habit, single
Indica sanguinea	1789	Bright crimson	Vigorous	South wall	Very little	Single-flowered
Indica semperflorens	—	Rose-red	Vigorous	South wall	Very little	Single-flowered

Roses and their Cultivation.

Various Species and Hybrids—continued.

Variety.	When Introduced.	Colour.	Habit.	Mode of Culture.	Pruning.	Remarks.
Lucida (<i>Sp.</i>)	1724	Bright red	Vigorous	Bush	Very little	Single-flowered
Lucida plena (<i>Sp.</i>)	—	Rose	Vigorous	Bush	Very little	Double-flowered
Macrophylla Fargesii (<i>Sp.</i>)	1910	Bright crimson	Vigorous	Bush, S. wall	Very little	Single-flowered
Macrantha (<i>Hyb.</i>)	1812	Bluish-white	Vigorous	Bush	Very little	Single-flowered
Microphylla (<i>Sp.</i>)	1828	White	Vigorous	Bush, S. wall	Very little	Single-flowered
Microphylla and rugosa (<i>Hyb.</i>)	—	White, edged pink	Vigorous	Bush	Very little	Single-flowered
Moyesii (<i>Sp.</i>)	1910	Brown-rose	Vigorous	Bush	Very little	Single-flowered
Mrs. A. Kingsmill (<i>Hyb.</i>)	1911	Shell-pink	Vigorous	Bush	Very little	Single-flowered
Niponensis (<i>Sp.</i>)	—	Rose-red	Vigorous	Bush, S. wall	Very little	Single-flowered
Nuttalliana (<i>Sp.</i>)	—	Bright rose	Vigorous	Bush	Very little	Single-flowered
Ochroleuca (<i>Sp.</i>)	—	Yellow	Vigorous	Bush	Very little	Single-flowered
Pimpinellifolia (<i>Sp.</i>)	—	Blush	Moderate	Beds or banks	Very little	Single-flowered
Piscocarpa (<i>Sp.</i>)	1877	Rose	Vigorous	Bush	Very little	Scotch Burnet rose
Pomifera (<i>Sp.</i>)	—	Blush	Vigorous	Bush	Very little	Pear-shaped hews
Pulverulenta (<i>Sp.</i>)	—	White	Vigorous	Bush	Very little	Large red hews
Sericea pteracantha (<i>Sp.</i>)	1822	White	Vigorous	Bush	Very little	Single-flowered
Virginiana alba (<i>Sp.</i>)	—	White	Vigorous	Bush	Very little	Very thorny, single
Webbiana grandiflora (<i>Sp.</i>)	—	Rose	Vigorous	Bush	Very little	Single-flowered
						Thorny, single

SYNONYMOUS ROSES.

FOLLOWING are the varieties of roses which are known by more names than one. On the left hand side we give the correct name, and on the right the synonyms. An intending exhibitor should be careful to read this list before staging his blooms, as should he, for example, stage Mrs. Harkness and Paul's Early Blush in a stand of six or a dozen distinct varieties, he would be disqualified.

PROPER NAME.	SYNONYM.
Adam	<i>President.</i>
Alfred Colomb	{ <i>Marshal P. Wilder.</i> <i>Wilhelm Koelle.</i>
Arimosa	<i>Hermosa.</i>
Augustine Guinoisseau	<i>White La France.</i>
Baron de Bonstetten	<i>Monsieur Boucenne.</i>
Bennett's Seedling	<i>Thoresbyana.</i>
Charles Lefebvre	{ <i>Marguerite Brassac.</i> <i>Paul Jamain.</i>
Cloth of Gold	<i>Chromatella.</i>
Common China	{ <i>Old Blush.</i> <i>Old Monthly.</i>
Common Provence	<i>Old Cabbage Rose.</i>
Dr. Grill	<i>Dulce Bella.</i>
Dorothy Perkins	<i>Lady Gay.</i>
Duc de Rohan	<i>Mrs. Jowitt.</i>
Duchesse de Caylus	<i>Penelope Mayo.</i>
Duke of Wellington	<i>Rosieriste Jacobs.</i>
Exposition de Brie	{ <i>Ferdinand de Lesseps.</i> <i>Maurice Bernardin.</i> <i>Sir Garnet Wolseley.</i>
Fortune's Yellow	<i>Beauty of Glazenwood.</i>
Himalaya	{ <i>Brunoni.</i> <i>Rubata.</i>
Jean Ducher	<i>Ruby Gold.</i>

SYNONYMOUS ROSES.

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PROPER NAME.				SYNONYM.
Jean Soupert	<i>Grand Mogul.</i>
Lady Faire	<i>Joseph Lowe.</i>
Lady Godiva	{ <i>Dorothy Dennison</i> <i>Christian Curle.</i>
Lady Mary Fitzwilliam	...	...	...	<i>Lady Alice.</i>
Lucida plena	...	...	...	<i>Rose Button.</i>
Madame Bravy	...	...	...	{ <i>Alba Rosea.</i> <i>Joseph Malton.</i> <i>Madame de Sertot.</i>
Madame Wagram	...	...	...	<i>Comtesse de Turrene.</i>
Maman Levasseur	...	...	...	<i>Baby Dorothy.</i>
Marie Baumann	...	...	...	<i>Madame A. Lavullée.</i>
Marie Finger	...	...	...	<i>Eugène Verdier.</i>
Marie Rady	...	...	...	<i>Comtesse de Choiseul.</i>
Mrs. W. H. Cutbush	...	...	...	<i>Mrs. Taft.</i>
Mrs. W. J. Grant...	...	...	...	<i>Belle Siebrecht.</i>
Paul's Early Blush	...	...	...	<i>Mrs. Harkness.</i>
Perle des Panaches	...	...	...	<i>Village Maid.</i>
Prince Camille de Rohan	...	...	...	<i>La Rosière.</i>
Souvenir de S. A. Prince	..	..	..	<i>The Queen.</i>
Splendens ...	...	...	...	<i>Myrrh Scented.</i>

POPULAR NAMES OF ROSES.

COMMON NAME.				BOTANICAL NAME.
Apple-bearing Rose	...	...	...	<i>Rosa villosa pomifera.</i>
Austrian Rose	...	...	...	<i>Rosa lutea punicea.</i>
Ayrshire Rose	...	...	...	<i>Rosa arvensis scandens.</i>
Barberry-leaved Rose	...	...	...	<i>Rosa berberidifolia.</i>
Bengal Rose	...	...	...	<i>Rosa bengalensis.</i>
Boursault Rose	...	...	...	<i>Rosa alpina.</i>
Bramble Rose	...	...	...	<i>Rosa multiflora.</i>
Bramble-leaved Rose	...	...	...	<i>Rosa setigera.</i>
Banksian Rose	...	...	...	<i>Rosa Banksiae.</i>
Burnet Rose	...	...	...	<i>Rosa spinosissima.</i>
Cabbage Rose	...	...	...	<i>Rosa centifolia.</i>
China Rose	...	...	...	<i>Rosa indica.</i>
Cinnamon Rose	...	...	...	<i>Rosa cinnamomea.</i>
Damask Rose	...	...	...	<i>Rosa damascena.</i>
Evergreen Rose	...	...	...	<i>Rosa sempervirens.</i>
Fairy Rose	...	...	...	<i>Rosa Lawrenciana.</i>
French Rose	...	...	...	<i>Rosa gallica.</i>
Japanese Rose	...	...	...	<i>Rosa rugosa.</i>
Macartney Rose	...	...	...	<i>Rosa bracteata.</i>
Monthly Rose	...	...	...	<i>Rosa indica.</i>
Moss Rose	...	...	...	<i>Rosa centifolia muscosa.</i>
Musk Rose	...	...	...	<i>Rosa moschata.</i>
Old Blush	...	...	...	<i>Rosa indica.</i>
Old Monthly	...	...	...	<i>Rosa indica.</i>
Prairie Rose	...	...	...	<i>Rosa setigera.</i>
Ramanas Rose	...	...	...	<i>Rosa rugosa.</i>
Scotch Rose	...	...	...	<i>Rosa spinosissima.</i>
Seven Sisters	<i>Rosa multiflora Grevillei.</i>
Sweet Brier	<i>Rosa rubiginosa.</i>
York and Lancaster	<i>Rosa damascena.</i>

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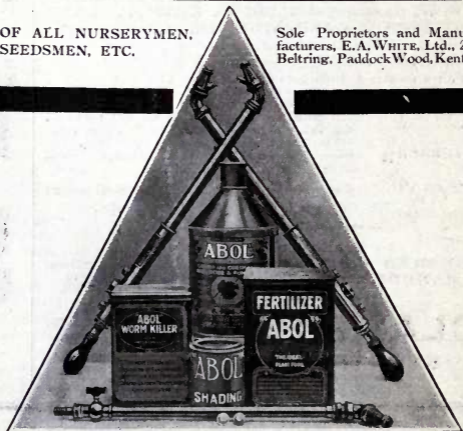
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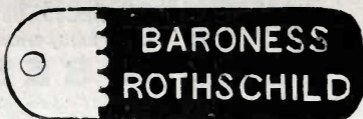
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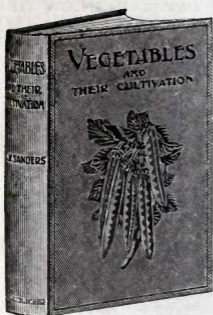
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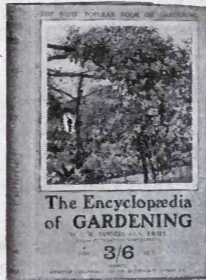
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